UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

THE SHIPPING CORPORATION OF INDIA LTD.

Plaintiff,

-against-

JALDHI OVERSEAS PTE LTD..

Defendant.

08 Civ. 4328 (JSR)

DECLARATION OF AMIT OZA IN SUPPORT OF DEFENDANT'S MOTION FOR COUNTER-SECURITY

AMIT OZA, hereby declares pursuant to 28 U.S.C. Section 1746:

- 1. I am the Head Chartering & Operations of Jaldhi Overseas Pte Ltd. ("Defendant" or "Jaldhi"), a company registered in accordance with the laws of the Republic of Singapore. I have over 15 years experience in the chartering and operations of vessels. Attached as **Exhibit 1** is a copy of my resume.
- 2. I make this declaration in support of Jaldhi's application to order plaintiff, The Shipping Corporation of India Ltd. ("Plaintiff" or "SCI"), a company registered in accordance with the laws of the Republic of India, to post counter-security.
- 3. I make this declaration based on my knowledge as Chartering Head of Jaldhi Overseas and the reports and documents which I have reviewed regarding the case.
 - 3.1. Attached as **Exhibit 2** is the preliminary report of David Hughes dated 23rd April 2008 in which he believes the primary cause of the crane collapse was a lack of pre tension on the securing bolts around the securing ring, evidenced by corrosion on the washers and nuts, per para 4.6 of his report.
 - 4.6 The contact surfaces on a significant number of nuts/washers on the stud joint between the outer slewing ring race and the crane tower, were severely corroded indicative of these joints being loose. This is considered to be



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- 3.2. The effect of the lack of pretension in the securing bolts meant that close to the time of collapse the crane tower effectively rocked whilst in use. That movement, which may have been only slight at the initial stages, was enough to cause the thread stripping process to start. It culminated in a sufficient number of nuts around the slewing bearing having their threads stripped to result in the crane tower falling over.
- 3.3. The failure to regularly check the pre-tension in the bolts as required by the manufacturers' of the crane, was a failure by the Plaintiff to ensure the said crane was properly maintained. Such lack of maintenance would have been self evident had the Plaintiff carried out a proper inspection of the said crane.
- 3.4. Pursuant to the charter party between Plaintiff and Defendant dated March 12, 2008 (the "Charter") (Exhibit 3), the Plaintiff was required to deliver the M.V. RISHIKESH ("Vessel") into Charter "with hull, machinery and equipment in a thoroughly efficient state..." (line 5) and "maintain her class and keep the Vessel in a thoroughly efficient state in hull, machinery and equipment (clause 1).
- 3.5. As evidenced by the first hire statement attached to the Plaintiff's Amended Verified Complaint at Exhibit 1, the Vessel was only delivered into Charter at about 0130 hours GMT on 29th March 2008. Following delivery, the Vessel was berthed and loading commenced. Barely six hours later, the crane collapsed. During that short period of time it was operating with a modified crane grab which restricted the weight that could be lifted to about 15MT (inclusive of the weight of the crane grab), from its certified safe working load of 25MT.
- 3.6. The fact that the No. 1 crane collapsed merely six hours after Plaintiff delivered the Vessel to the Defendant shows a strong likelihood that the Vessel was unseaworthy when she was delivered into Charter.



4. As a consequence of Plaintiff's breach of the Charter to deliver the Vessel "with hull, machinery and equipment in a thoroughly efficient state...", Plaintiff is liable to Defendant for all foreseeable losses that Defendant has or may suffer as discussed below.

Wrongful Death

- 4.1. According to the statement taken from the Watch Foreman at the Haldia dock complex, the crane driver who was operating the Vessel's No. 1 crane had over 15 years experience operating cranes. At the time the crane collapsed the grab bucket was empty and the crane was slewing outboard to take another load, when it fell. Unfortunately, the crane driver was seriously injured during the crane collapse and subsequently died.
- 4.2. Under clause 8 of the Charter Defendant was required to "load, stow, and trim, tally, lash, secure and discharge the cargo at their expense". The employment of stevedores and crane operators was carried out for and on behalf of the Defendant. Accordingly, Defendant is potentially liable for any wrongful death claims which may be brought by the estate of the Indian crane operator against the Defendant.
- 4.3. Defendant claims \$1,000,000.00 as counter-security from Plaintiff for the wrongful death of the crane operator.

Charter Hire

- 4.4. Clause 4 of the subject Charter provides for hire to be payable at the rate of \$80,000/day. It is Defendant's case that Plaintiff is liable for breaches aforesaid by way of damages at large for losses of the Defendant.
- 4.5. Hire is payable under clause 5 "Payment of said hire and value of estimated consumable bunkers to be made in Owners' designated bank account New York in United-States Currency 15 days semi-monthly in advance, and for the last 15 days..." Defendant has been required to pay hire in advance, hire which is likely to be recoverable as damages for the breaches aforesaid. Defendant therefore claims counter-security for damages in respect of the same sum for which hire has been paid.



- 4.6. Clause 52 states "In case of loss of time due to boycott, picket at any port or …directly attributable to ….. the terms and conditions on which captain, officers and members of crew were employed or other events, for which Owners are solely responsible… the vessel then to be off-hired for any time lost thereby and the cost of bunkers consumed during the period to be for Owners account."
- 4.7. Defendant has paid hire to the Plaintiff in the amount of \$1,260,585.00, which is hire for the first 15 days plus the value of bunkers estimated to be consumed till Singapore. Given the fact that the crane collapse occurred about 6 hours after the Vessel was delivered to the Defendant, no hire is due to the Plaintiff till the Vessel is back alongside at the same or similar berth from where she was withdrawn from Defendant's service. Accordingly, Defendant claims counter-security for the initial hire it paid to Plaintiff in the amount of \$1,260,585.00.
- 4.8. As per the Kolkata Port Trust's letter dated March 30, 2008 the "cargo operation of the vessel will remain suspended till such time an enquiry is carried out by Dock Safety Officials..." (Exhibit 4). The "stalemate" between Plaintiff and the Port Trust continues as the former has not provided the Port Trust with certain documentation with the net result that the Vessel is still awaiting a loading berth. (Exhibit 5). Pursuant to clause 52 of the Charter no hire is to be paid by the Defendant for any loss of time caused by "events, for which [Plaintiff] [is] solely responsible." Furthermore, under the Charter the Vessel remains off hire until she is in a position not less favourable to the Defendant as at the time the Vessel went off hire (following the crane collapse) which would be all fast alongside the same or similar berth from where she was withdrawn from Defendant's service.
- 4.9. Notwithstanding the fact that the Vessel is off hire and no hire is payable by the Defendant from when the accident occurred till date, Plaintiff has attached Defendant's funds as security for hire until 28th May 2008 in the total amount of \$3,503,510.00. Plaintiff is NOT entitled to hire for this period as the evidence clearly establishes that the Vessel was unseaworthy and deficient with respect to its loading equipment resulting in the tragic and unfortunate death of the crane operator. In the circumstances, Defendant claims countersecurity in the same amount for which Plaintiff has obtained security by way of attachment of Defendant's funds in the amount of \$3,503,510.00.



Loss of Profit claimed by the shipper

- 4.10. Defendant had employed the Vessel for the carriage of a cargo of 50,000MT 10% moloo iron ore to China. The shippers of the cargo are Messrs. Rashmi Metaliks Ltd., Rashmi Group, Kolkata.
- 4.11. The Charter provided for a laycan of 20th March /5th April 2008, which the Vessel achieved. However the failure of the Vessel to load the said cargo to date because of the Plaintiff's breach has resulted in the shippers alleged losses of around \$2 million which they say are recoverable from the Defendant. See **Exhibit 6.**
- 4.12. In the event Defendant is held liable to the shippers for the loss of profit claim, Defendant will claim indemnity from the Plaintiff for such losses which resulted from Plaintiff's breach of the Charter. Accordingly, Defendant claims counter-security for the shipper's loss of profit claim in the amount of \$2,000,000.00.

Legal Costs and Arbitration Expenses

5. Legal costs and expenses of arbitration are provided for in sections 59~65 Arbitration Act 1996. Section 61 sets out the usual Order, that they "follow the event". Thus the winner in the litigation is entitled to recover all their reasonable legal costs and expenses. The arbitration Tribunal (if they retain jurisdiction) otherwise the Court will resolve any argument there may be concerning the extent of the Tribunal's Order on costs and thus the reasonableness and recoverability of the sums claimed. Defendant claims counter-security for legal costs and arbitration expenses in the amount of \$450,000.00.

<u>Interest</u>

6. The winning party will be entitled to interest on the damages awarded, in accordance with the section 49 Arbitration Act 1996, at a rate and for a period the Tribunal considers just. Defendant claims interest on the hire and bunkers paid of \$1,260,585.00 at the rate of 7% compounded 3-monthly for 3 years in the amount of \$291,749.00.



Summary of Defendant's Counter-Claim

7. Thus, Defendant seeks counter-security for the following claims:

Wrongful Death	\$1,000,000.00
Charter Hire	\$4,764,095.00
Loss of Profit Under the Sub Charter	\$2,000,000.00
Interest at 7% for 3 yrs	\$291,749.00
Legal Costs and Arbitration Expenses	\$450,000.00
TOTAL	\$8,505,844.00
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8. I declare under penalties of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on May 22, 2008

EXHIBIT 1

101, Cecil Street, #8-06. Tong Eng Building. Singapore 069533 Mobile: 65-92346506

Amit Oza

Personal

Date of Birth: 06th January 1971

Information:

Nationality: Indian

Education:

1) Membership of Institute of Chartered Shipbrokers, London

3) Bachelor of Science (Physics)

From Jaihind College, Bombay University, Bombay Stood First in college with aggregate 74% marks.

Experience:

1) G. PREMJEE GROUP (GEEPEE), THAILAND

- Paramount Shipbrokers Limited, London

Shipbroker 1992 - 1993

Since renamed Aries Shipbrokers, this ship broking outfit in London was a part of G. Premiee Group in Bangkok, handling all group requirements of Geepee. As shipbroker, was involved in basic negotiations and handled all post fixtures, drawing up C/P, tonnage updating on TLP / Strategic software.

Also traded on the floor of Baltic Exchange as probationary member. Exposure to basic chartering practice including offers / counters / recaps / clauses etc.

- G. Premiee Limited, Bangkok Marketing Executive 1993 - 1995

As a trader with this large trading house, had exposure to trading practices / letters of credit / UCP 500 / shipping terms in trading contracts / INCOTERMS / banking terms etc. More specifically, served on rice and fertilizer desks as junior trader. Gained significant insight and experience in rice trade from Indian subcontinent / South East Asia to Africa and the fertilizer trade from US Gulf / Mexico / Jordan / Tunisia etc. to Indian Subcontinent.

2) AL AQILI GROUP, U.A.E.

-Sharjah Abrasives LLC, Sharjah **Chartering Executive**

1995 - 1997

Al Aqili Group (www.aqili.com) is a large diversified trading house based in Dubai. Sharjah Abrasives is a part of Agili group and has since been renamed as Middle East Abrasives.

As Chartering Executive and the sole shipping person in the company, was responsible for movement of all raw materials and handling two time chartered vessels. The company chartered two vessels for 6 months time charter (MV-iTHOMI & MV TEGEA). Was responsible for all operations and chartering activity for the vessels including negotiating with brokers, agents, bunker suppliers, P & I clubs etc. Regularly time-chartered ships from Saganoseki, Japan, for movement of bulk copper slag from Japan to UAE and Bahrain in handy size parcels. Also concluded many broking and operating deals for third party accounts.

Astra Shipping LLC, Dubai Manager 1997 – 2000

In February 1997, Al Aqili group consolidated the shipping activity under a single entity with me as the head of department. Although not a core activity of the group, the company made significant progress and concluded many deals.

Responsibilities included:

- All functions of head of department including budgeting, reporting, recruitment, administration etc.
- Undertaking & Supervising (in case of deals done by other junior colleagues) all activities including chartering, operations, bunkering, P and I etc.

Activities included:-

- Time charter operators for selected clients like:
- Movement of petcoke from China to India for a large calcination plant in India
- Movement of DAP and Urea from Bangladesh to Australia for a large Singapore based trader.
- Movement of logs from Australia to UAE for UAE based logging plants.
- Movement of Sulphur from P.G. to India for Indian Clients.
- **Ship broking activities** for all close clients including ETA, Dubai / Adani, Dubai / Swiss Singapore, Dubai / Tradeline, Dubai / SABIC and SIEC, Riyadh / KPC and PIC, Kuwait / GIIC, Bahrain etc.

3) ADANI GROUP, DUBAI

 Libra Shipping Services LLC, Dubai Manager, Chartering June 2000 – March 2002

Adani Group in Dubai is a wholly owned subsidiary of Adani Exports Limited in India (www.adanigroup.com), which is currently the largest export house in India with a turnover of over USD 1 billion. As Chartering Manager, I am presently responsible for all dry chartering activity of the group, including negotiating with brokers, owners etc and obtaining the best freight.

The group is currently active in following trades:

- Scrap from UK to India, Pakistan & Bangladesh (Handy)
- Coal and coke from China and Australia to India (Handy/Panamax)
- Meals / Extractions from India to Continent / Far East (Tweens / Handy)
- Peas from Canada and Australia to India (Handy)
- Grains from India to Middle East and South East (Handy)
- Steels from Middle East to India (Tweens)
- Fertilizers from Middle East and U.S to India (Handy / Tweens)

One of my most critical functions is to co ordinate with all trading desks and provide them with freight numbers & cover, assist them in trade contracts and

letters of credit and provide feedback on trends in the trade based on information from shipping sources.

My involvement includes all aspects of time charter, including pre-fixing checks on physical restrictions of ports, market conditions, bunker prices etc. I am also involved with assisting and supervising operations along with the operations team, including claims, off-hires, supervision of loading / discharging operations etc.

I was directly coordinating with traders of various desks on all operational and freight matters.

4) ROYAL DUTCH SHELL GROUP

- Shell Hazira Gas Pivate Limited, Ahmedabad, India Business Development Manager (Port) May 2002 – January 2006

Royal Dutch / Shell (<u>www.shell.com</u>) is a global group of energy and petrochemicals companies operating in 145 countries and employing more than 115,000 people. Shell companies produce more than 3.5% of global gas and approximately 3% of the world's oil.

Shell is setting up a multi cargo port and a Regasification terminal at Hazira, about 200 nm north of Mumbai. The total project cost is about USD 600 million.

As business development manager for the port company, I am responsible for implementing the group objectives of port development, which includes induction of value adding partner into the port company. As a part of my assignment, I was also actively involved in understanding the LNG value chain, supply and demand parameters and other differentials (shipping costs, pipeline, regasification, liquefaction etc.) in the trade.

I advised on commercial structuring and negotiations for a dry bulk and general cargo terminal at the port, using the 'landlord' model of development of the terminal.

Specific tasks include:

- To draw up a detailed port development strategy, keeping in view the objectives of the group
- To assess dry bulk cargo, container markets and other potential of the port on long-term basis in order to arrive at a revenue model for the port company.
- To understand the entire chain of transportation relevant to Hazira and to address bottlenecks in the trade flow, including marine restrictions like tides, currents etc., as well as evacuation facilities like rail, road etc.
- To continuously access competition from other ports, dynamics of the trade and to keep management appraised of traffic and tariff implications
- To identify and engage the investor universe for the port company with the help of financial advisors, who is a leading international investment banker.
- Drafting and negotiating licenses and leases for operating other terminal within the port waterfront.

5) ASTRAMAR SHIPPING & TRADING SERVICES PRIVATE LIMITED,

AHMEDABAD Director

February 2006

Director with Astramar Shipping & Trading Services Private Limited, which provides shipmanagement, shipbroking and other value added services in the trade and logistics of bulk commodities.

6) JALDHI OVERSEAS PTE LIMITED, SINGAPORE

Head – Chartering and Operations

July 2007 to date

Professional Courses/ Seminars Attachment with Thomas Miller: Was attached to Thomas R. Miller & Son, UK for three days in 1994 to understand the working of U.K. P & I Club.

Indian Institute of Management Course: Attended the 5-day residential course on Shipping Management conducted by Indian Institute of Management in India, in 1998.

BIMCO Courses in Dubai: Attended two BIMCO courses on 'Towards Better Decisions' held in 1995 and 1996 at Dubai.

Shipping and Operations Workshop: One week residential course conducted by STASCO (Shell Transport & Shipping Company) held in June 2003 at Singapore on tanker chartering and operations in Shell.

EXHIBIT 2

PRELIMINARY REPORT

"RISHIKESH" COLLAPSE OF No. 1 Crane HALDIA, INDIA, 30th March 2008

Your ref:

ELM/2290/CHA.28

Our ref:

6184/CM/DH

Date:

24th April 2008

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1.0 **INTRODUCTION AND BACKGROUND**

- 1.1 This report has been prepared by Mr. David Hughes of Marine Metallurgical Consultants Ltd and my Curriculum Vitae are attached as Appendix I.
- 1.2 I received instruction in this matter from M/s Michael Else & Co, P&I for the Charterers of the "RISHIKESH", in the early part of April and after arranging a visa I travelled to Haldia via Kolkata on the 14th April 2008 arriving at Haldia on the 15th April 2008
- 1.3 The matter concerns the collapse of No. 1 crane of the "RISHIKESH" which unfortunately resulted in the death of the crane operator. The "RISHIKESH" is a 5 hold bulk carrier with five cranes. No 1 crane is located on the foc's'le and is manufactured by M/s Brissonneaux & Lotz Marine (BLM), France.
- 1.4 It is understood that at the time of the incident the vessel was starboard side to and was loading a cargo of iron ore. Holds 1, 4 and 5 were being loaded with holds 2 and 3 not being loaded because of shore based automatic discharge conveyor systems restricting access.
- 1.5 As the grab bucket of No. 1 crane was being lowered down the side of the vessel to collect iron ore i.e. the grab was empty, the crane suddenly and apparently without warning toppled over onto No. 1 hatch cover on the starboard side. The crane had parted in way of the slewing bearing leaving the crane pedestal and part of the slewing ring assembly, inner race, in place.
- 1.6 Surveys by Charterer's local surveyor, M/s Ericson & Richard, prior to my attendance, had established that a majority of the upper slewing bearing studs/nuts had failed and the outer race of the slewing ring had fractured. This had resulted in many of the nuts and washers and also the roller bearing and spaces to spill out on the crane platform and other areas.
- 1.7 By the time of my arrival the crane tower had been landed ashore along with fractured outer race. The majority of nuts, washers, rollers and spaces that had been retained were kept on board the vessel
- I attended a joint survey of the crane parts on the 17th April 2008. On completion of 1.8 the joint survey a joint memorandum was drawn up and signed by all those in

attendance and a copy of this is attached as **Appendix II**. A number of samples were retained for further, more detailed, metallurgical examination at a later date should the need arise and agreement be reached between the interested parities regarding a Test Protocol.

2.0 SURVEY

- 2.1 The incident occurred just after 19.00 hours on the 30th March 2008 and **Figures 1** to 17 are various views taken by our local surveyor the day after the incident i.e. on 31st March 2008. These photographs show the following:
 - The crane tower is shown lying on top of No. 1 hatch cover, Figures 1 to 5. It can be seen that many of the stud joints have failed and part of the outer slewing ring race has fractured.
 - The fractured part of the outer ring of the slewing bearing, **Figures 6 to 8** showing the respective fracture surfaces.
 - The pedestal and inner slewing ring remaining in place, Figures 9 to 11.
 Note that the pedestal appears to be completely unaffected and free of any distortion or deformation.
 - Numerous nuts, washers, roller bearings and spaces scattered on the crane platform, Figures 12 and 13.
 - The open grab bucket on the quayside, Figure 14.
 - The buckled cane jib, Figures 15 and 16.
 - The parted runner wire, Figure 17.
- 2.2 At the time of the incident the crane was not loaded nor was it being operated upwards; it was lowering an empty grab bucket towards the quay. From these circumstances alone overload, or misuse, of the crane during the subject lift could be discounted, however I took the opportunity to look around the loading area at

the subject berth, No. 5. This survey confirmed that the loading area was free of any obstructions or objects on which the grab bucket could snag or accidently grab.

- 2.3 It is considered beneficial to briefly explain the construction of the crane and in particular the slewing ring design. The lower part of the crane is a circular steel pedestal with a flange welded at the top, termed the lower flange; the flange has a number of bolt holes, see Figure 10. The inner race of slewing ring is fastened to the lower flange using studs, nuts and washers (not bolts). The upper part of the crane, the crane tower, which includes the crane jib, motors sheaves etc also has a flange built into the bottom of the tower, termed the upper flange, see Figure 4 and 5. The outer race of the slewing ring is fastened to the crane tower flange using studs, nuts and washers (not bolts). This crane has only one bearing ring and uses a system of roller bearings on alternate axis to provide the necessary axial and radial bearing thrust support. Thus the interaction of the roller bearings on the bearing race walls holds the crane in place.
- 2.4 The joint survey took place between about 10.30 and 15.00 hours on the 17th April 2008.
- All the available slewing rings parts, nuts, washers, roller bearings and spacers were examined. The actual numbers of the various parts are shown in the joint survey report, see **Appendix II** and it may be seen that not all of the parts were recovered. However it may be seen that the Owners P&I surveyor and also the crane manufacturer's representative had already removed a number of nuts. This had been done without the knowledge of the Charterer's surveyor. Owners P&I surveyor confirmed that he had taken four nuts and nothing else from the crane. He has agreed to return the nuts to the safe keeping of the office of the "Shipping Corporation of India", Owners/Managers of the "RISHIKESH". The representative of the crane manufacturer's confirmed that he had taken two nuts and nothing else from the crane. These two nuts had been sent back to BLM in France for examination.

2.6 Crane Pedestal and Inner Slewing Ring Race

2.6.1 The first area to be inspected was the remains of the pedestal, lower flange and inner slewing ring race. They were still in their original position on the vessel. The running race surface was found to be in reasonable condition with no evidence of any long running problems or short term mechanical damage. There were some

areas of light rust which could be indicative of inadequate greasing, see Figures 18 and 19.

2.6.2 **Figure 20** shows some of the studs used on the lower flange to inner race joint. There was a significant crack in the paint in way of one nut/washer, see **Figure 21**, which could be indicative of a loose nut.

2.7 Flange Nuts

- 2.7.1 Figure 22 shows the 31 nuts that have placed to show the lower face of the nut as positioned on the crane. It may be seen that the bore of the nuts appear to be rusty, the threads had stripped, and also at least one of the nuts appears to have paint down the bore, indicated by arrow 'A'.
- 2.7.2 Figures 23 to 27 show the same nuts but turned over to show the face that would have been in contact with the washer. Again rusty threads can be seen. It may also be seen that there is significant variation in the condition of the contact surface ranging from bright to rusty. A rusty surface is indicative of a loose nut as the presence of rust indicates that water has been able to penetrate between the mating surfaces which would not be possible if the nut had been fully torqued up.
- 2.7.3 Figures 28 and 29 show some of the rusty nuts and Figure 30 shows the bright surface evident on some of the other nuts. I was of the opinion that the bright surface was in fact a coating, possibly zinc, indicating that the nuts may have originally been galvanised.
- 2.7.4 I requested that all of the nuts including those held in the Chief Engineer's office and those currently in the custody of the P&I surveyor be retained for further, more detailed studies.

2.8 Flange Washers

2.8.1 Figure 31 shows the 45 washers with the surface that would have been in contact with the nut visible. Closer views of the washers are shown in Figures 32 to 36. Again a significant variation in the appearance of the washers can be seen ranging from a fully rusty contact surface to a bright surface. Again these washers appear to have been plated, probably galvanised. Closer views of some of the washers are shown in Figures 37 and 38 showing severe rusting of the contact surfaces.

- 2.8.2 The surface of the washers that had been in contact with the outer slewing ring race are shown in Figure 39 with closer views shown in Figures 40 to 44. Again a significant and large variation in the condition of this contact surface can be seen on these washers. It may also be seen that a number of the washer are not 'round' but had an irregular shape. Further the bore of the hole on this surface has been chamfered. Figures 45 and 46 are closer views showing some of the features mentioned above.
- 2.8.3 I requested that all of the washers including those held in the Chief Engineer's office be retained for further, more detailed studies.

2.9 Roller Bearing & Spacers

2.9.1 Figure 47 shows the roller bearings which were noted to be in satisfactory condition. The roller bearing spacers are shown in Figure 48 and these were also noted to be in a satisfactory condition save for one which had fractured. I did not consider it necessary to retain any of the roller bearings or spacers and all of the other interested parties were in agreement with this.

2.10 **Crane Tower & Studs**

- 2.10.1 Figures 49 to 51 show the crane tower after it had been taken ashore. At the time of collapse of the crane all seventy two (72) studs had remained attached to the tower. By comparison of this picture with that shown in Figure 3 it may be seen that part of the outer slewing ring race had been removed and some of the studs had been flame cut. It later transpired that the engineering workshop dealing with the repairs to the vessel had removed part of the slewing ring in order to aid removal of the tower from the vessel.
- 2.10.2 Figures 52 and 53 show the width of the outer ring race, 120mm wide, and the length of stud which protruded from the tower. This measurement was checked on a number of studs and found to be the same within about 5mm.
- 2.10.3 Close examination of the studs revealed that the last 40mm or so was significantly wasted and rusty. This section of stud corresponds to that which would have protruded beyond the nut. Examples of the wastage are shown in Figures 54 and 55.

- 2.10.4 The length of stud that had been engaged with the nut appeared to be in a relatively reasonable condition and close examination revealed that in every case it was the thread of the nut which had stripped the thread section still engaged on the stud, see Figures 56 and 57.
- 2.10.5 Some of the studs were slightly bent, see Figure 58, this has probably occurred as the crane toppled and the slewing ring was put under a bending load and fractured.
- 2.10.6 It is understood that at the time of the casualty, 18 of the studs/nuts remained intact on the crane tower although on a number of these the nut had been displaced. At the time of our joint survey only ten nuts remained; eight had been removed by the ship repair company and discarded. The remaining ten nuts can be seen at the bottom of the tower, see Figure 51. By studying the location of the jib the arc containing the still intact studs/nuts would have been at the aft side of the crane when it was stowed. Correspondingly the arc of flange that fractured corresponded to the forward side of the crane when stowed i.e. the side of the crane that would have been exposed to worse of the seas and weather.
- 2.10.7 Closer views of the still intact studs/nuts are shown in Figures 59 and 60 and significant scale and wastage of the outer slewing ring race can be seen.
- 2.10.8 I suggested retaining four of the studs including one with a nut still on it. The studs will be taken from about the 12, 3 and 9 o'clock positions plus the one with the nut which was about the 5 o'clock position.

2.11 Outer Slewing Ring Race

- 2.11.1 Figure 61 shows two segments of the outer slewing ring race which had been burnt off by the repair team and discarded. Closer views of the underside are shown in Figures 62 and 63. The raised areas on the flange correspond to where the stud/nut/washer had been and the area between these raised areas corresponds to wastage of the flange.
- 2.11.2 The segment of outer slewing ring race that originally fractured at the time of the incident is shown in Figures 64 and 65. The fractured ends are shown in Figures 66 and 67 (and also Figures 7 and 8). Both fractures were rapid, brittle type fractures consistent with high sudden loading. There was no evidence of any progressive or long mode of cracking such as fatigue cracking.

- 2.11.3 Figure 68 shows a steel rule placed across two stud holes, the amount of wastage of the slewing ring section can clearly be seen.
- 2.11.4 Close examination of the contact faces on the slewing ring i.e. the area that would have been in contact with one side of the washer, revealed a number of areas that were rusty i.e. the nut/washer had been loose. Examples of this are shown in Figures 69 to 71. These examinations also revealed that in many instances the washer had been eccentrically positioned relative to the stud/nut as evidenced by the eccentric witness mark, see Figure 72.
- 2.11.5 It was agreed after some discussion to retain two samples of this segment of slewing ring, one from an end containing a fracture surface and a second containing a number of holes which had rusty contact surfaces, see Figure 73.

3.0 **DISCUSSION**

- 3.1 Crane No. 1 toppled over suddenly and without warning whilst the grab bucket was being lowered down the ship's side. The crane had only been in use for about six hours at the port. There were no objects or features that the grab bucket could have snagged on or accidently grabbed. These facts alone are strong evidence that the cause of the crane collapse was not misuse by the crane operator.
- 3.2 Thus the crane has simply toppled over. The jib position was reported as being at about 45° to the crane tower at the time of the incident. There is no damage to the ship's bulwarks confirming that the jib must have been at a reasonable angle or the jib would have made significant contact with the bulwarks before the crane tower hit the hatch covers. Therefore the only feasible toppling forces have been normal toppling forces that should normally be resisted by the crane's structure. Therefore the crane's structure must have been weak to allow the crane tower to topple whilst not under any extraordinary loading. The slewing ring studs are designed to withstand the toppling forces.
- 3.3 Examinations have shown that a majority of the nuts holding the outer slewing ring race to the underside of the tower have stripped and the outer slewing ring race had fractured. Examinations have also shown that a significant number of the contact faces between the nut/washer and also between the washer/slewing ring

were corroded. This is indicative that a significant number of stud joints were not tight such that water was able to enter the respective joint causing corrosion of the contact surfaces. The extent of corrosion on some of the items was severe indicative of long term exposure and thus the joint must have been loose for a long period of time measured in months and years.

- 3.4 The slewing ring fractures were instantaneous fractures caused by sudden high bending type loads and must have occurred during the actual crane toppling process.
- 3.5 The evidence shows that a number of the securing nuts were loose and had been for some period of time. It was also observed that at least fifty six (56) of the nuts had stripped (eighteen were still on the ring but some of these had also stripped). Thus it would appear that a reasonable section of the slewing ring race was not securely held in place. As mentioned previously the crane tower is held in place by the slewing ring rollers, if the ring is allowed to become displaced then the crane will lose its stability and begin to rock and/or topple. As the crane rocks slightly because of the slack nuts, increasing loads will be placed on the adjacent nuts and these will fail.
- 3.6 It would appear that as the studs had been progressively failing as the crane has rocked/toppled slightly this has put a high bending force on the outer slewing ring race which has eventually fractured rapidly. It will have been this event that will have destroyed the integrity of the bearing and the rollers and spacers would have started to fall out of the bearing. The loss of the bearing integrity will have allowed the crane to then suddenly completely topple over.
- 3.7 Thus preliminary conclusions are that the primary cause of the crane collapse is that a significant number of the nuts on the slewing ring were loose for some considerable period of time. This can only be attributed to a lack of maintenance by the crew who were apparently carrying out regular checks on these joints. It is of significant note that the crane manufacturer's representative and the P&I surveyor for Owners only took samples of the nuts and nothing else suggesting that they considered that there had been a problem with the nuts.
- 3.8 There are a number of questions regarding the nuts and washers which require further investigation as to why they failed. I consider that there are two general aspects which require comment a) The crane manufacturer's circular regarding

these nuts, which infers that these nuts have a tendency to loosen and require proper inspection and b) the material characteristics the nuts/washers which may have had a further bearing on why they became loose.

3.9 Crane Manufacturer's Circular

- 3.9.1 During the course of these investigations certain documents have been disclosed by Owners/Managers and this included a copy of Preventive Maintenance System (PMS) sheet for the No. 1 crane. A copy is attached as Appendix III. It may be seen that item 13 refers to 'Check slewing bearing bolts for tightness' and reference is made to BML (should be BLM) circular Fol 1/3 (in bold). It is also noted that this task was carried out on the 05.01.08, 11.02.08 and 22.03.08 just 7 days before the crane toppled over.
- 3.9.2 Owners/Managers also provided us with a copy of the BLM circular although we only received two of the three pages referenced. A copy of this circular is attached as Appendix IV. The circular is titled "Slewing Bearing Bolting for Crane -Maintenance Instructions" and was issued in 05/05/99 and is the referenced JCW Ind.1. The circular states that the bolting has to be checked regularly and the intervals vary according to the equipment and its use. However as a standard they recommend that
 - "...Every two years, check the bolting tightening by using a short shock wrench and a medium range hammer (500/600g)..."
 -Under a reasonable shock in tightening direction the sound must be clear... and the nut must not rotate..."
 - "...Every 7 years or/and after any dismantling of the studs/screws, replace them...".
- 3.9.3 I cannot understand why, according to the PMS records that the bolts were checked every month for the past three months when the circular states that it is only necessary to do this every two years. However it is clear that if recent tests had been conducted as per the circular then given the poor state of some of the nuts and washers which were obviously loose, they would have turned and they would not have produced the 'clear' sound. Therefore one can only assume that the

inspections have not been carried out or have not been carried out correctly for a long period of time.

3.9.4 The circular continues;

- "... If during checking, one or some of the stud bolts (or screws) are found relaxed, all stud bolts (screws) have to be retightened..."
- "...If during the retightening operation, the recommended tension or torque can't be reached the stud or screw must be replaced ... "
- "...Only bolts delivered and certified by BLM can assure the right fitting of slewing bearing..."
- 3.9.5 Thus the circular infers that there is a problem with the studs/nuts and they require periodic checking and replacement every seven years or so. It is without doubt that if these studs had been checked correctly over the past couple of years then some of them will have been found to be loose and the records should reflect this as it would have been necessary to torque up all the studs as per the instruction in the circular. This would probably have required a ship repair yard's intervention. The fact they were allegedly checked seven days prior to the incident shows that they were not being checked or alternatively they were not being correctly checked.
- 3.9.6 As mentioned previously the extent of corrosion on some of the contact surfaces indicates that they have been exposed to the seawater environment for some considerable period of time. There may even be paint down the bore of some of the rust which can be confirmed by subsequent examination. However the extent of corrosion would have meant that the paint around the nut/washer would have been noticeably cracked, similar to the nut/washer event on the inner ring and shown in Figure 22. Thus during any wrench/hammer test this cracking would have been clearly visible and any competent person should have been aware of the importance of this visual evidence.
- 3.9.7 Therefore, in summary, the evidence clearly shows that the crane, and particularly the slewing ring bolts, have not been inspected and maintained in accordance with the manufacturer's recommendation nor in accordance with the vessel's own PMS instructions.

3.10 The Nuts and Washers

- 3.10.1 We do not have the manufacturer's specification for the study, nuts and washers. We have noted that the nuts and washers may have been galvanised. This is a little unusual for high tensile strength joints but it depends on the tensile strength of the stud. The presence of a galvanised layer may have had a detrimental effect on maintaining the correct pretension especially when corrosion was beginning to take place.
- 3.10.2 The study did not appear to have been galvanised and so the nuts would have had to have been machined oversize to accommodate the galvanised thickness which would be of the order of 43 µm (minimum) on each tooth flank and also at the root of the thread. Any loss of galvanising plating due to corrosion will have reduced the actual thread dimensions and thus reduced the strength of the joint. These are aspects that can more fully investigated at a later date when the manufacturer's material specifications for the nuts and washers are known and also after the nuts and washers have been fully evaluated.
- 3.10.3 The visual appearance of the nuts was out of character with the slewing ring race with respect to the amount of corrosion/wastage. The slewing ring was heavily corroded whilst the nuts were rusty they were not heavily scaled. This could be indicative of the nuts having been changed some time in the past but it is not possible to say when.

4.0 CONCLUSIONS

- 4.1 No.1 crane of the "RISHIKESH" toppled over without warning whilst the grab bucket was being lowered down the ship's side.
- 4.2 Investigations indicate that at the time of the collapse the crane was not being misused in anyway; the crane was without any cargo load, the crane jib was at an angle of about 45° and there was no evidence of any snagging etc of the bucket that could have caused problems with the crane.
- 4.3 The crane had only been in operation at this port for about six hours and there were no reported instances from the vessel's crew or anyone else of crane misuse during that time.
- 4.4 Preliminary investigations by the undersigned, whilst the vessel was moored at Haldia undergoing repairs, have revealed that the toppling over of No. 1 crane was attributable to the failure of outer slewing ring race which became partially detached from the upper flange/crane tower.
- 4.5 The threads on a significant number of nuts holding the outer slewing ring race to the crane tower had stripped allowing the ring to displace. Eventually the ring has displaced to such an extent that the ring fractured which destroyed the integrity of the bearing and the crane then fell.
- 4.6 The contact surfaces on a significant number of nuts/washers on the stud joint between the outer slewing ring race and the crane tower, were severely corroded indicative of these joints being loose. This is considered to be the prime cause of the slewing ring becoming partially detaching from the crane tower flange.
- 4.7 The extent of corrosion on some of the nuts/washers was severe indicative of the nuts/washers being lose for some considerable period of time.
- 4.8 Some of the nuts and washers appeared to have been plated, possibly galvanised.
- 4.9 The makers of the crane had issued a bulletin recommending checking the tightness of these nuts at least every two years and replacing the nuts every seven years. The evidence obtained to date indicates that this action was either not carried out at all or was not carried out correctly.

- Thus, in summary, the evidence available indicates that at the time of the incident 4.10 crane was not being misused or badly operated and that the cause of failure of the crane is attributable to poor maintenance of the crane's structure over the preceding years.
- 4.11 A number of samples have been jointly selected by Owners/Charterers and retained by Owners pending further metallurgical examinations. The samples include all the available nuts and washers, two sections of the outer slewing ring race and four of the studs.

Eur ing David Hughes CEng MIMMM

Dated: 23rd April 2008

For and on behalf of

Marine Metallurgical Consultants Eur Ing David Hughes CEng MIMMM

APPENDICES

Photographs -Figures 1 to 73

Appendix I Curriculum Vitae

Appendix II -Joint Memorandum

Appendix III - PMS sheet for No. 1 Crane.

Appendix IV - Circular from the Crane Manufacturer BLM dated 05.05.99

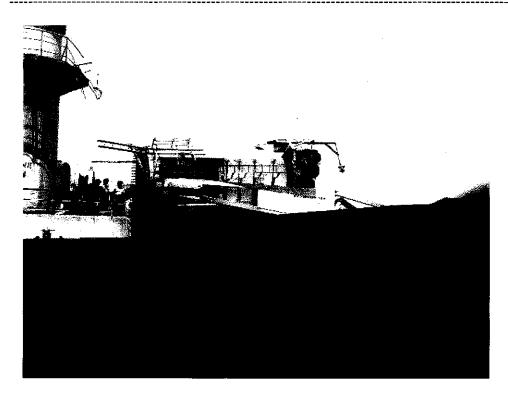


Figure 1, General view of crane tower on top of hatch cover

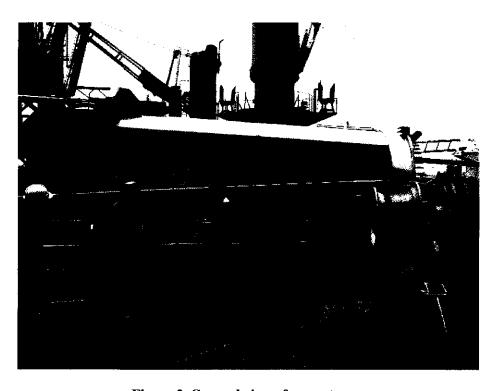


Figure 2, General view of crane tower

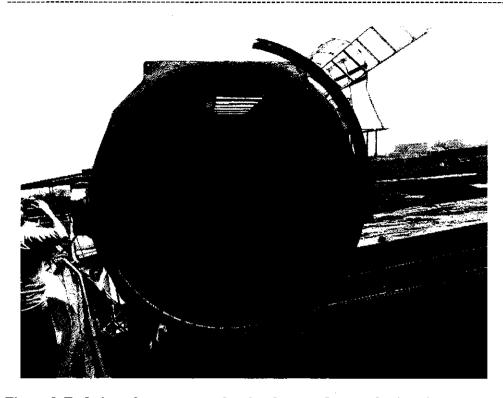


Figure 3, End view of crane tower showing fractured outer slewing ring race and failure of a large number of stud joints

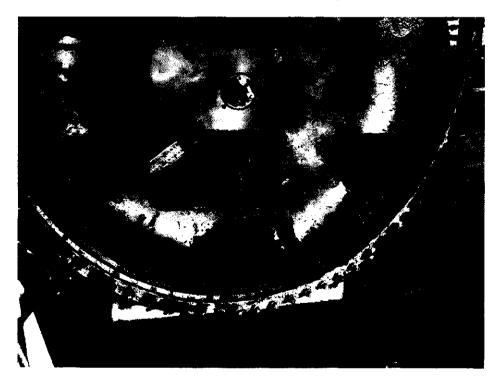


Figure 4, Closer view of crane tower showing part of outer slewing ring

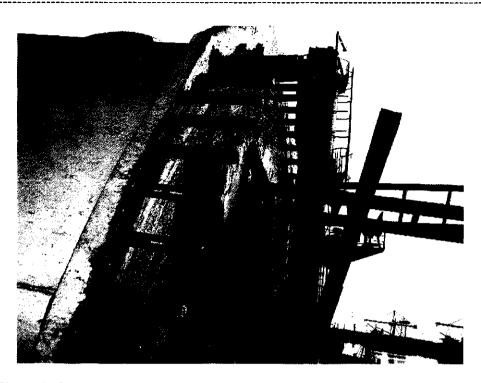


Figure 5, Close-up view of crane tower showing some of the failed stud joints in way of area of fractured slewing ring.

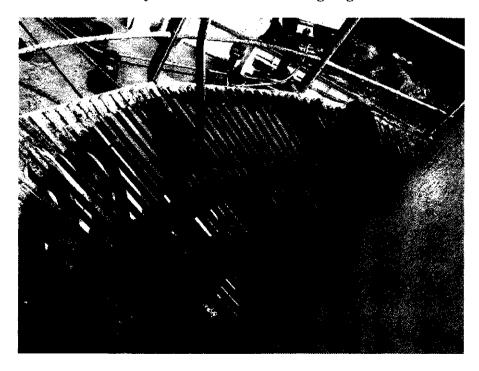


Figure 6, Segment of fractured slewing ring and some nuts, washers, roller bearings and spacers on the crane tower platform

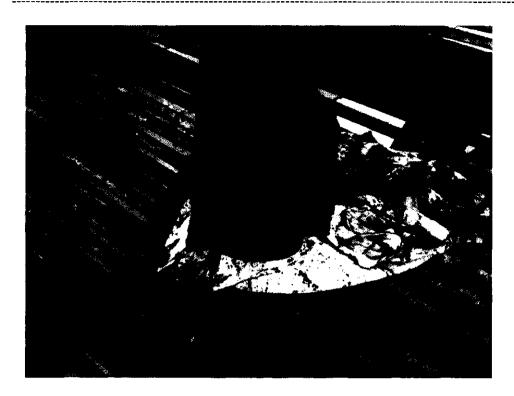


Figure 7, Close-up view of fracture surface of slewing ring

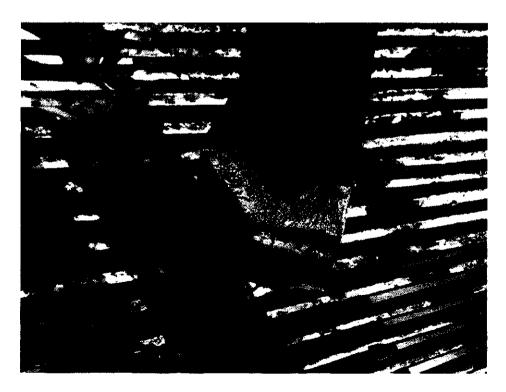


Figure 8, Close-up of fracture surface of slewing ring

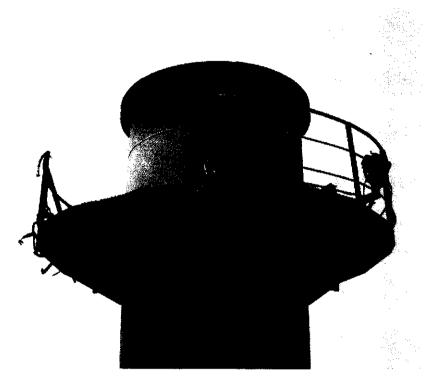


Figure 9, General view of crane pedestal showing still intact inner slewing ring



Figure 10, View of inner slewing ring race surface e and also the lower flange stud joints



Figure 11, Inner slewing ring gear teeth

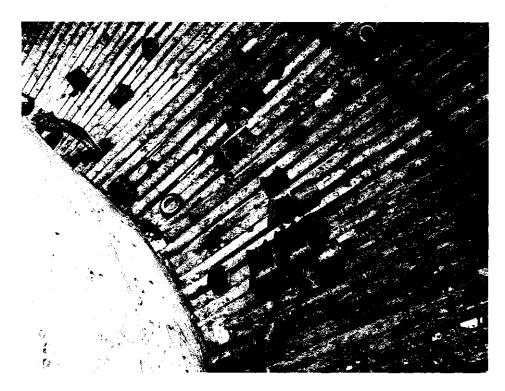


Figure 12, Numerous nuts, washer, bearing and spacers on the crane platform

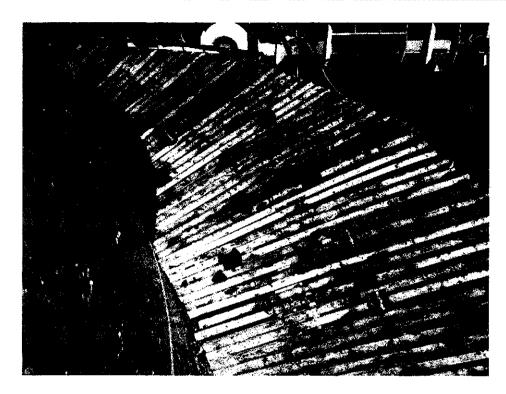


Figure 13, Numerous nuts, washer, bearing and spacers on the crane platform



Figure 14, Open grab bucket on quayside

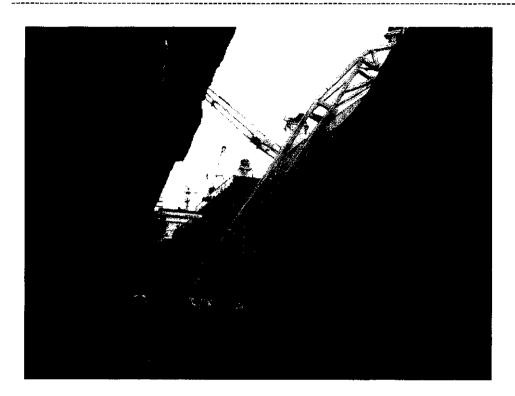


Figure 15, Buckled crane jib

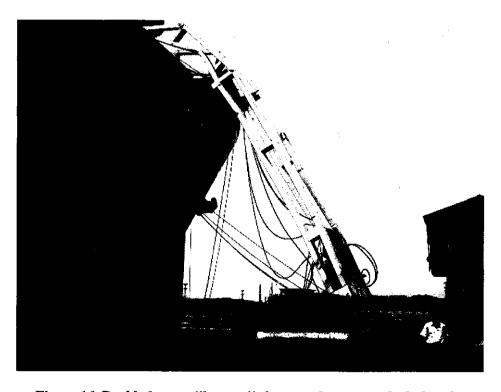


Figure 16, Buckled crane jib, note little or no damage to the bulwarks

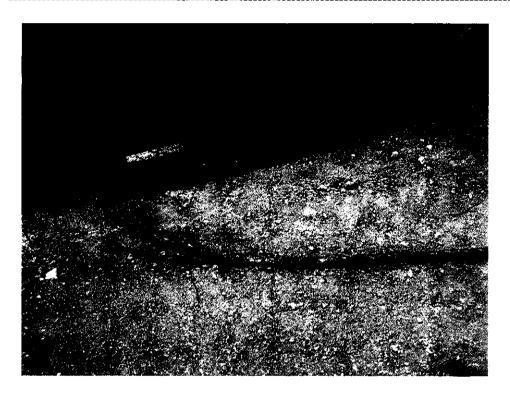


Figure 17, Parted runner wire



Figure 18, Race running surface of inner slewing ring in good condition



Figure 19, Lightly rusted race inner race running surface

There is no photograph in this space



Figure 20, Close-up view of some of the lower flange stud joints, the paint is cracked around one of the joints, indicated by arrow 'A' and see Figure 21 below

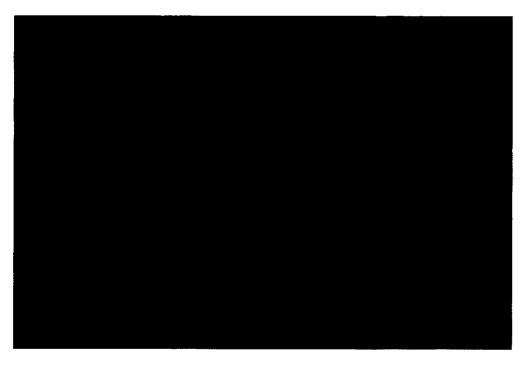


Figure 21, Close-up view showing crack in paint indicative of a loose nut

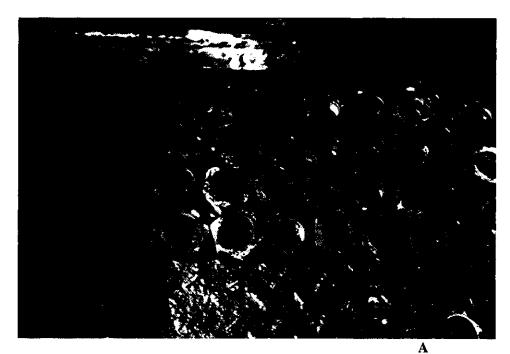


Figure 22, General view of some of the nuts. The threads had stripped and the bore of some of the nuts were rusty. One of the nuts appears to have paint down the bore, indicated by arrow 'A'. The face shown is the 'external' face i.e. that not in contact with a washer.

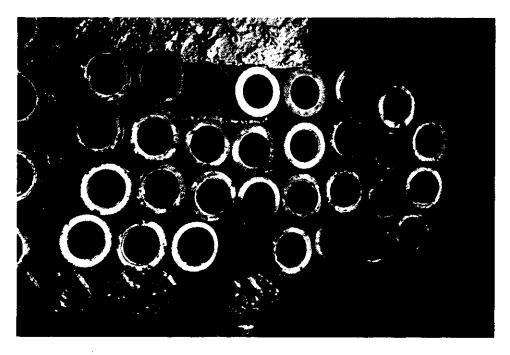


Figure 23, General view of the same nuts showing the contact surface. A variation of bright to rusty contact surface can be seen

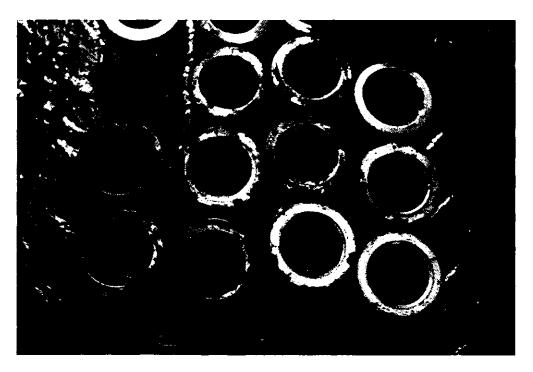


Figure 24, Close-up view of some of the nuts showing the different visual appearances. The bright areas appear to be a coating of some nature, probably zinc (galvanised)

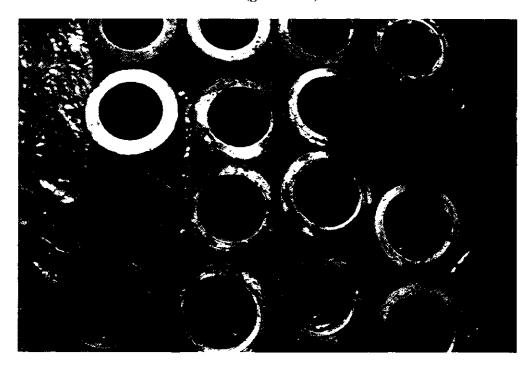


Figure 25, As for Figure 24

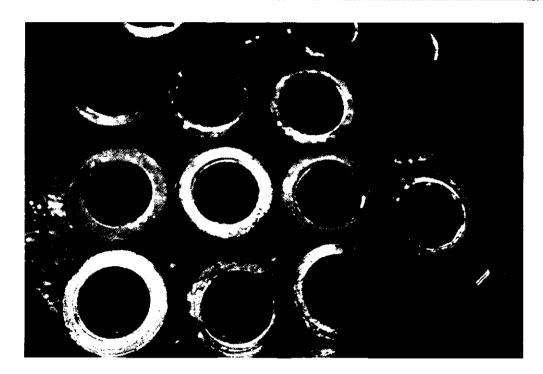


Figure 26, As for Figure 24

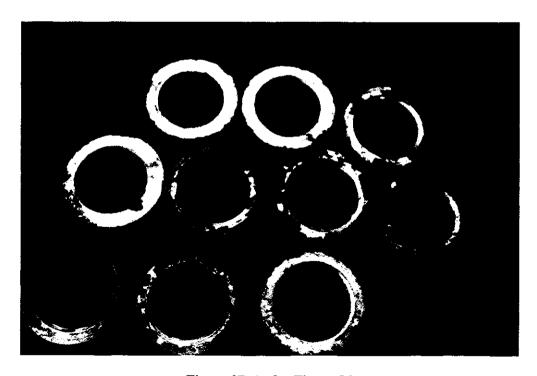


Figure 27, As for Figure 24



Figure 28, Close-up showing a heavily corroded contact surface indicative of the joint being loose for some considerable period of time.

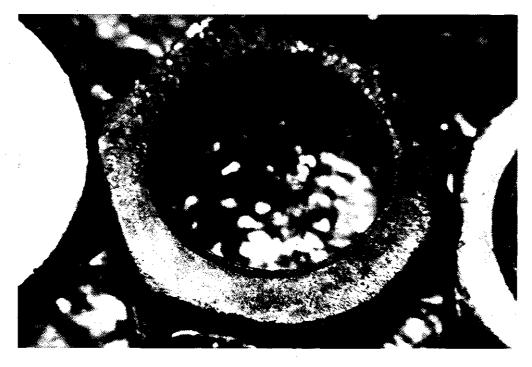


Figure 29, Similar to Figure 28



Figure 30, Close-up view of some nuts showing probable breakdown of the plating

There is no photograph in this space

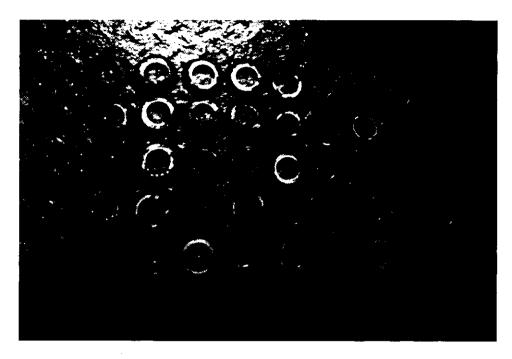


Figure 31, General view of some of the washer showing the surface that would have been in contact with the nut. A large variation in the appearance from bright to rusty can be seen.

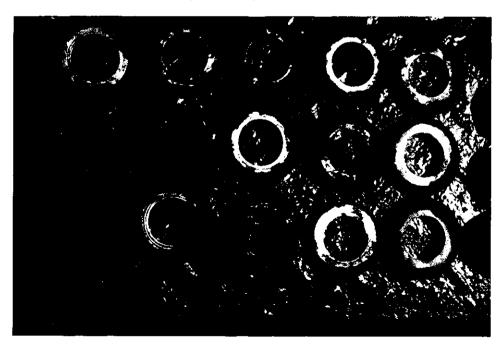


Figure 32, Close-up view of some of the washers showing the different visual appearances. The bright areas appear to be a coating of some nature, probably zinc (galvanised)

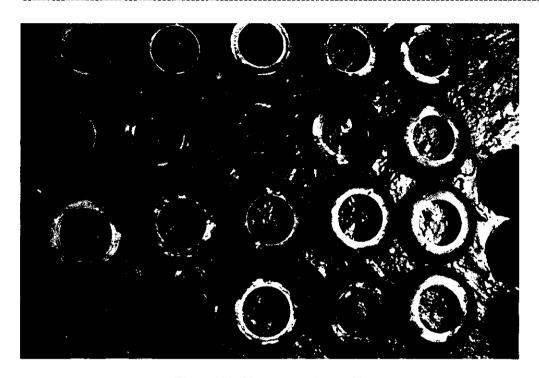


Figure 33, Similar to Figure 32

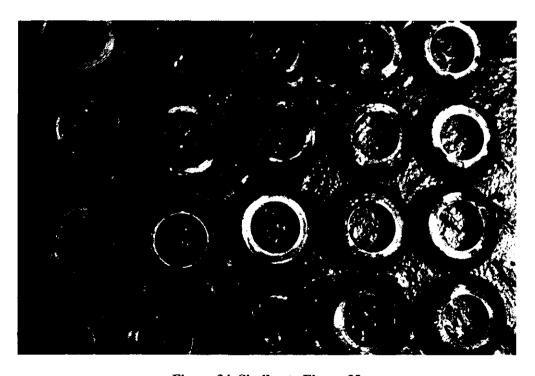


Figure 34, Similar to Figure 32

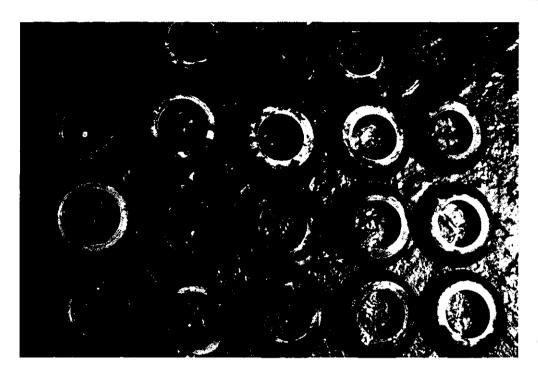


Figure 35, Similar to Figure 32

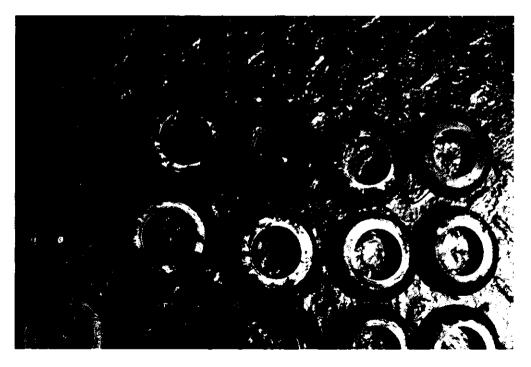


Figure 36, Similar to Figure 32

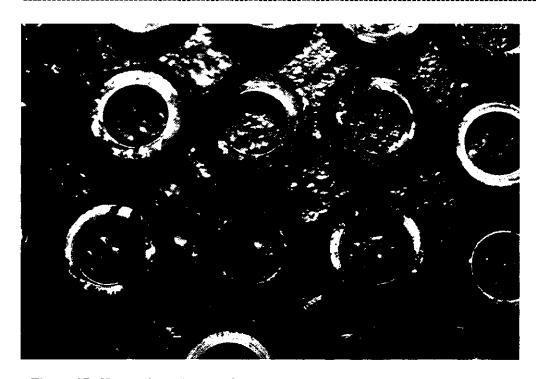


Figure 37, Closer view of some of the washers showing severely rusted contact surfaces.

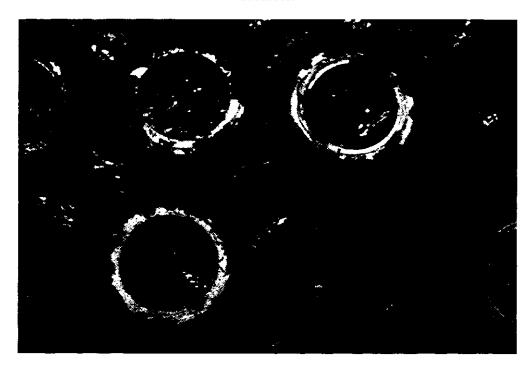


Figure 38, Similar to Figure 37

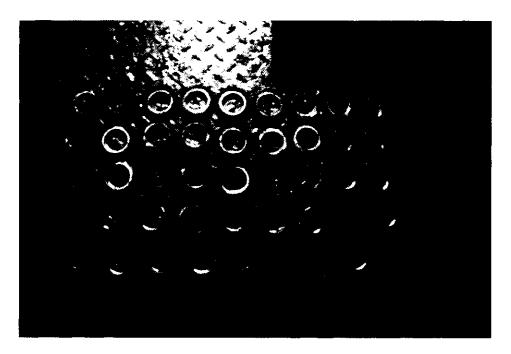


Figure 39, General view of some of the washers showing the surface that would have been in contact with the slewing ring. A large variation in the appearance from bright to rusty can be seen. Note the bore of the washer has been chamfered.

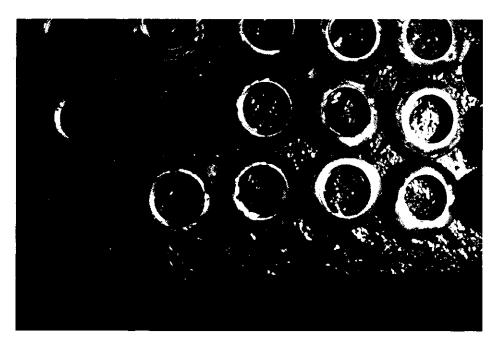


Figure 40, Close-up view of some of the washers showing the different visual appearances. The bright areas appear to be a coating of some nature, probably zinc (galvanised)

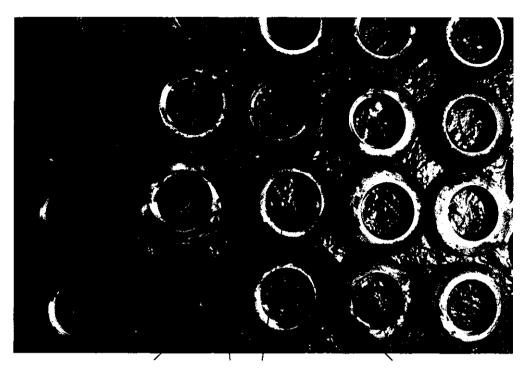


Figure 41, Similar to Figure 40, note the very irregular shape of some of the washers, indicated by arrows.

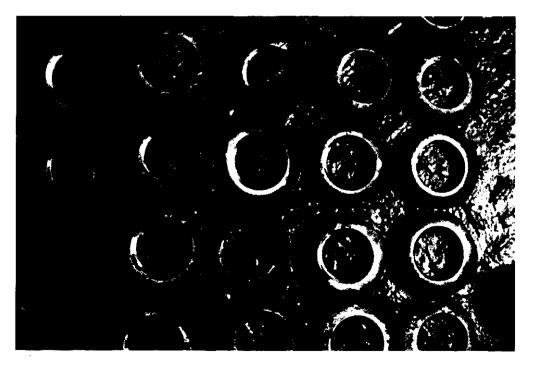


Figure 42, Similar to Figure 40

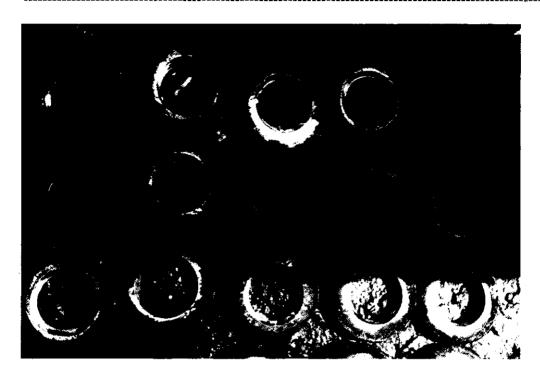


Figure 43, Similar to Figure 40

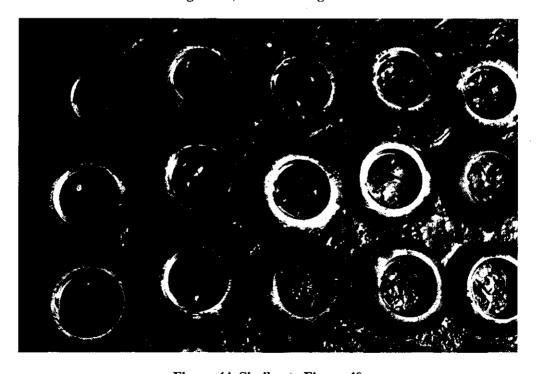


Figure 44, Similar to Figure 40

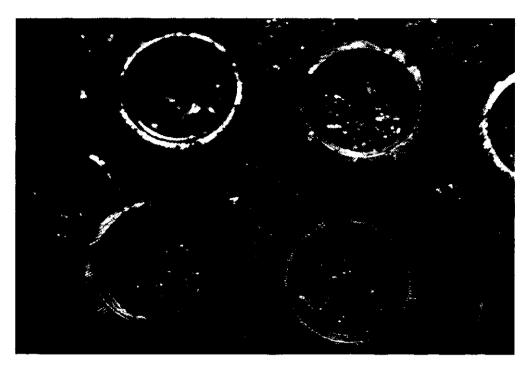


Figure 45, Close-up view of some of the washer showing the very rusty contact surfaces and the irregular shape of some of the washers



Figure 46, Similar to Figure 45

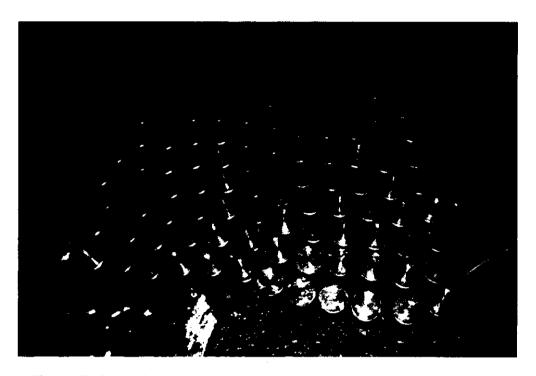


Figure 47, General view of the roller bearings, these were noted to be in good condition

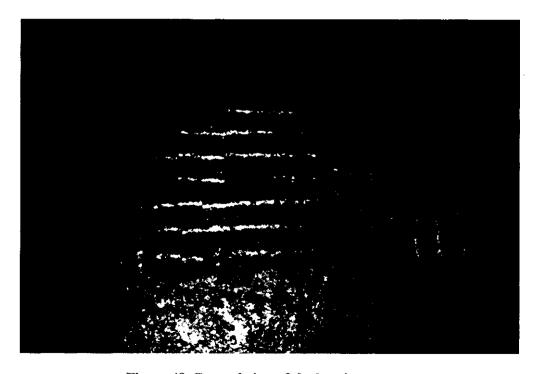


Figure 48, General view of the bearing spacers



Figure 49, General view of the crane tower after removal from the Vessel. A majority of the outer slewing ring has been removed as well as some of the studs which had been flame cut

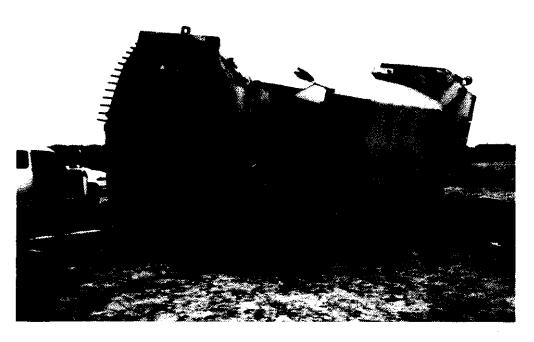


Figure 50, Further view of crane tower

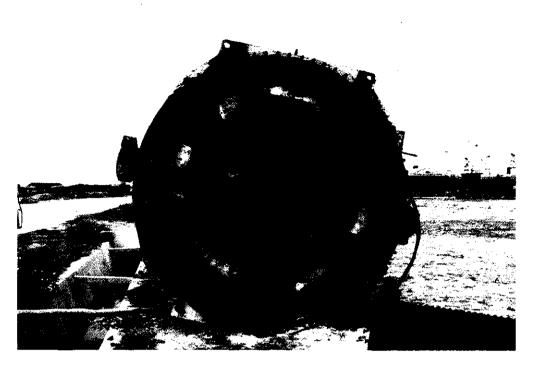


Figure 51, End view of crane tower

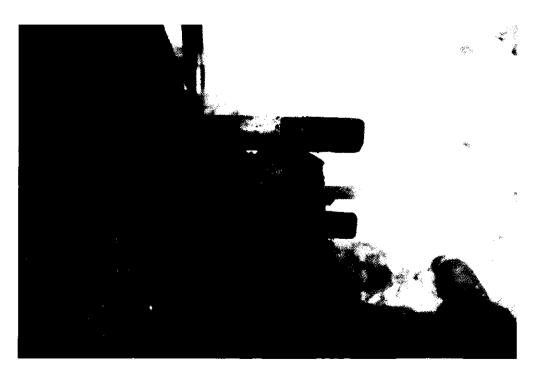


Figure 52, Close-up view of outer slewing ring which had been flame cut by the ship repairers. One of the studs can also be seen



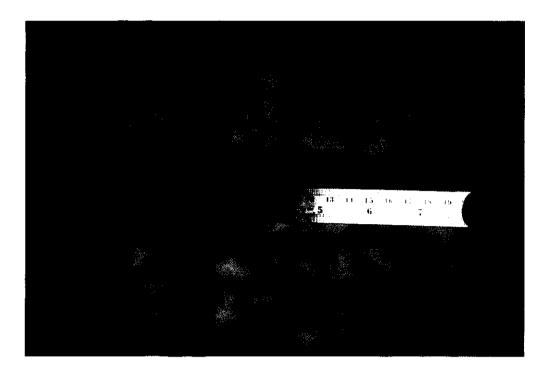


Figure 53, Close-up view of one of the failed studs



Figure 54, A general view of a number of studs showing the end section to be heavily corroded and wasted and also some of remains of the threads from the nuts can be seen.

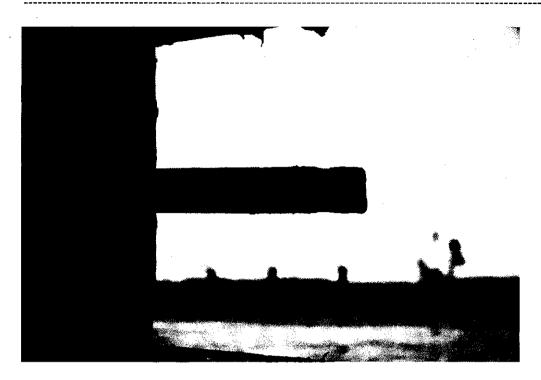


Figure 55, View of one of the studs showing severe wastage

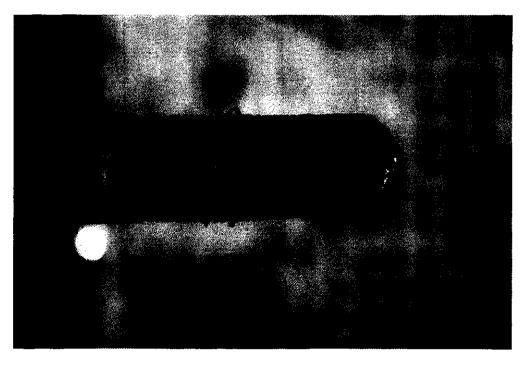


Figure 56, Close-up view of a stud showing the remnants of thread from the nut still engaged. The heavily corroded end of the stud can also be seen.



Figure 57, Similar to Figure 56



Figure 58, View showing some of the studs had bent slightly

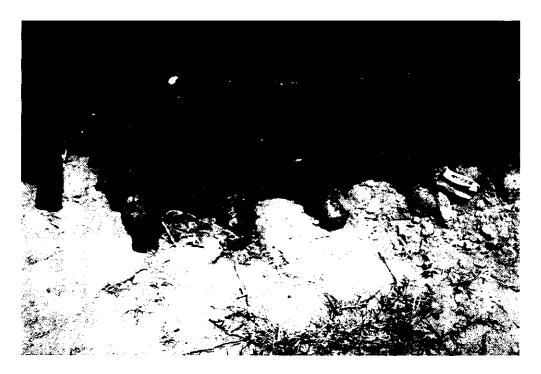


Figure 59, Close-up view of remnants of outer slewing ring showing severe corrosion.



Figure 60, Closer view of Figure 59

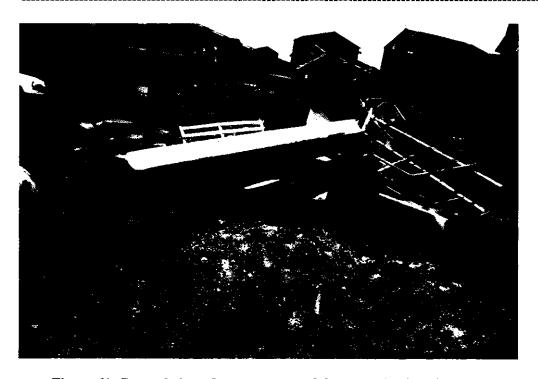


Figure 61, General view of two segments of the outer slewing ring race discarded.



Figure 62, Closer view of one of the one of the outer slewing ring segments showing corroded surfaces

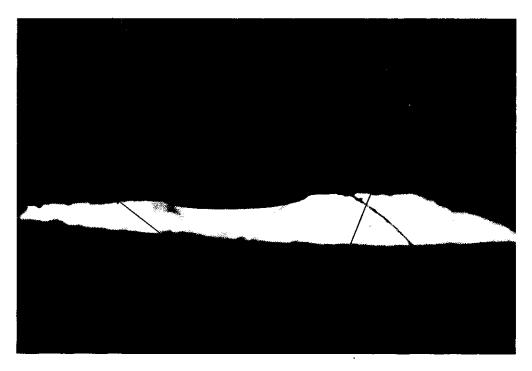


Figure 63, Close-up view of outer slewing ring race showing wastage either side of stud hole, the wastage has been indicated by arrows.

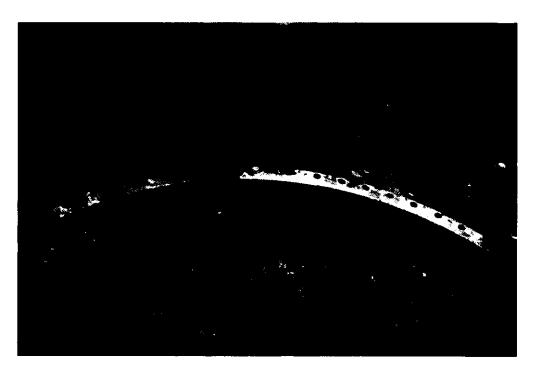


Figure 64, General view of the segment of outer slewing ring which fractured. The surface shown would have been in contact with the upper flange.



Figure 65, General view of fractured outer slewing ring showing the surface that would have been in contact with the stud washers.



Figure 66, Close-up view of one of the fracture surfaces

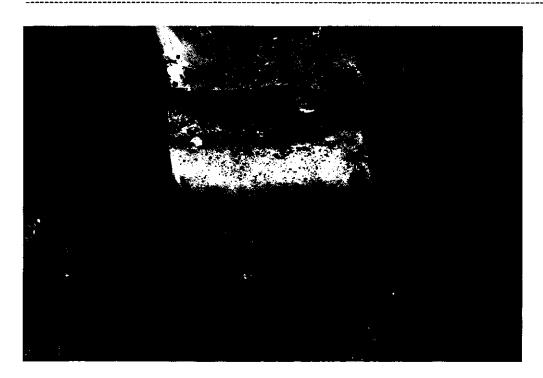


Figure 67, Close-up view of the other fracture surface. The fracture has occurred at the assembly/inspection plug.

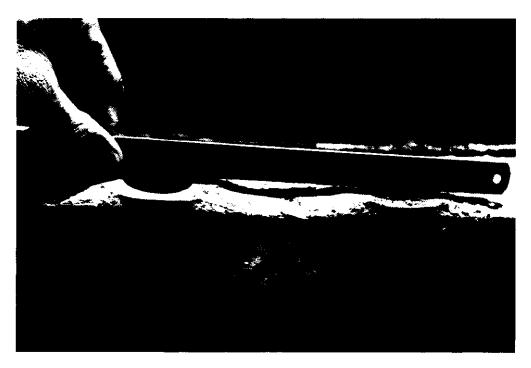


Figure 68, View showing wastage of fractured outer slewing ring race between the stud holes



Figure 71, Similar to Figure 70



Figure 72, View of a contact surface showing corrosion and also an eccentric witness mark produced by the washer

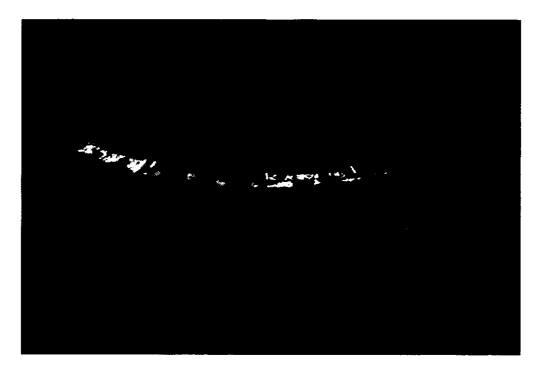


Figure 73, General view of the fractured outer slewing ring race showing the two areas, arrowed, to be sampled.



Marine Metallurgical Consultants Ltd.

181 Victoria Road, New Brighton, Wirral, Merseyside, UK, CH45 0JY Tel: +44 (0) 151 249 8384 and +44 (0) 151 639 1608 Fax: +44 (0) 151 639 1608 E-mail: david@hughesmarine.co.uk

Curriculum Vitae

Eurling David Hughes CEng MIMMM

Mobile: +44 (0) 7740 151170

David Hughes is a qualified and experienced Consultant Metallurgist with a proven record, providing expert witness services to both marine and land based clients.

His expertise is in providing metallurgical services in relation to major ship casualties and land based incidents. Casualties in the marine industry include constructive total loss, hull and structural failures, and main engine, auxiliary engine and auxiliary machinery component failures. Additionally, David has extensive experience of steel cargoes, including rolled steel plate, steel coils, tubing, reinforcing bars and steel forms. David also provides expert and advisory services in relation to project cargo claims, steel raw material commodities (bulk cargoes - DRI, iron ore) and some non-ferrous commodities. Land based incidents range from major/key plant failures to machinery/component type failures.

Initially, David spent a number of years employed with a large manufacturing organisation, rising from technical trainee to senior metallurgist. During this period he obtained degree qualifications in metallurgy. In 1988, David joined a foreign consultancy organisation based in the Middle East, and his responsibilities included trouble shooting/quality and specification compliance of plant/ machinery, and products purchased as part of a multi-million pound project.

David joined Ocean Fleets / Atlantic Engineering in 1990 and remained there for seven (7) years), and following a 5 year spell with Alfred H. Knight, he joined Taylor Marine TR Little as Director and Consultant Metallurgist in 2002. In 2006 David decided to set up his own metallurgical consultancy concentrating on marine related matters. By setting up on his own he aims to provide a more efficient service to his existing and also new clients.

Nationality:

British

Date of Birth:

24th February 1954

Membership of Professional Bodies

Member of the Institute of Materials

- MIMMM

Chartered Engineer

- CEng

European Engineer

- Eur Ina

Experience

Over many years, whilst employed for a number of marine related companies. David has gained a wide range of experience in providing metallurgical consultancy services into the cause of, shipping casualties, engineering failures, steel and other cargo damages and contractual disputes.

The range of marine appointments has included constructive total losses, sinking's, hull failures, major structural failures, corrosion and wastage to hull and other structures and support systems (piping, boilers), and main engine, generators down to small diesel size engines and auxiliary machinery failures. Investigations into the cause of cargo damage have included all types of steel cargoes including rolled steel plate, steel coils, tubes and pipes, reinforcing bars and steel forms. David has also provided assistance on a number project cargo claims and ferrous and non-ferrous commodity cargoes.

Litigation Experience

David has provided expert witness services and attended at The Royal Courts of Justice (Admiralty Division) London & Belfast, marine arbitration in London and Hamburg, deposition and Federal trial in USA (New York) and Yemen commercial court.

A selection of metallurgical caseworks in which David provided expert opinion reports and in some instances expert witness services are as follows:

- 'MSC Carla' Hull structural failure, ship hull broke in two, front section, with approximately 1400 containers lost, aft section salvaged, Nov 1997. Provided expert testimony during trial, April/ May 2003, in New York.
- MSC Napoli Hull structural failure of South Coast of England, total loss (Ongoing)
- 'NAPA' VLCC which sustained cracking of the side shell and side shell longitudinal resulting in oil spillage - Indian Ocean, May 2003, attended at Bahrain, (ongoing)
- 'Cordigliera' General cargo ship that sank suddenly with the loss of 29 lives. Investigation into the condition of the vessel and the cause of the sinking. Settled Nov 2003.
- 'Castor' Oil tanker with major crack in main deck plating (22m) associated with severe corrosion of main structural members. Investigated nature, extent and cause of corrosion. Settled.
- 'Stena Concordia' & 'Stena Continent' VLCC conversions to FSOP's. Investigated nature and extent of web frame cracking, attended at Singapore and Brazil. (Ongoing).
- 'Prestige' Oil Tanker, structural failure and subsequent total loss of fully ladened tanker. (Ongoing).
- 'Vertigo' Attending and advising on behalf of slavors in relation to a very valuable cargo of steel products that had been salvaged after a collision. (ongoing)



- Gantry Crane Failure Investigation into the cause of structural failure of a large gantry type crane on behalf of US based commercial insurance organisation - settled.
- 'Front Tobago' VLCC, loss of main engine crankshaft (216mt weight). Investigate cause of fracture. Attended in Singapore (Ongoing).
- 'Palmyra' Investigation cause of rudder loss and also nature and cause of damages to the cargo which included six circa 200 tonnes each transformers. (ongoing).
- 'Muhibbah MEB-JB 1' Jack up rig, investigated nature and cause of cracking to spud-leg compartments. Scotland, attended arbitration in Hamburg.
- 'Panamax Sun' investigate cause of rudder failure. (ongoing)
- 'Federal Elbe' investigate cause of rudder stock failure. (ongoing)
- 'Antonis A' investigate cause of rudder loss. (ongoing)
- 'Clipper Paranagua' Pedestal crane collapse, attended in Brazil. Investigate cause of crane collapse. (settled)
- 'Weisshorn' Anchor chain failure, resulting in total loss, acted as independent appointed expert for the Admiralty court (London).
- 'Minerva P' Investigate cause of damage to project cargo (64" diameter pipes) on three voyages. (settled)
- Transworld -v- Corus Trading large shipment of galvanised product. quality dispute. Expert witness and also witness of fact.
- Al Qawiyyu Damage to large shipment of reinforcing bar (19,000Mt) -Yemen - Commercial Court of Aden
- 'Atasovia II' Single joint expert, advised on nature and cause of steel cargo water damaged.
- 'Adamandas' Shipment of DRI from CIL (Point Lisas) to Indonesia, overheating of cargo and subsequent loss of ship.
- 'Suerte' Slewing ring/Crane collapse of West Africa London Arbitrationsuccessful.
- Caravos Horizon Loss of rudder horn and rudder blade London Arbitration (ongoing)
- 'CEC Apollon' Investigation into the cause of crane failure on vessel during discharge of cargo in Busan, Korea (ongoing).
- 'BBC Asia' Investigate nature and cause of damage to a project cargo, large furnace parts - ongoing (ongoing).



- 'Carli Bay et al' action on behalf of a number of vessels subject to contamination at Point Lisas, Trinidad & Tobago, by DRI being loaded from Mittal CIL (ongoing).
- 'Xuan De Men' Investigation into the cause of wire rope failure that resulted in collapse of ship's deck crane. (ongoing)
- 'Port Lisboa' Investigate cause of crane collapse. (ongoing)

Marine Clients include the following:

Andrew Weir Shipping

Barclay Shipping

Bentleys, Stokes & Lowless

BHP (Petroleum)

BMM

Burke & Parsons (NY)

Charterers Mutual

Charles Taylor Consulting

Clyde & Co.

Coe Metcalf (James Fisher)

DLA

Edon Liddiard Vince (BMT)

European Ferries Hill Dickinson

Holman Fenwick & Willan Holmes Hardingham

Hyundai Mipo Dockyard

Ince & Co.

IOM Steam Packet Co. Ltd.

John Harkers

L.M.S. Ship Management Inc.

Local Merseyside Shiprepair and Marine

Consultancy Companies Mersey Docks & Harbour Co.

Noble Chartering

Norse Merchant Ferries

Norton Rose

Numerous P&I clubs, GARD, UK Club. Steamship, Swedish Club, North of

England etc

P&O Companies including Poets &

Pandora

STX Shipbuilding Corp (Korea) Ramsey Steam Packet Co.

Richards Butler Stena Line

Stephenson Harwood

Tank Ships Thomas Miller Waltons & Morse

Employment

May 2006 to date

Marine Metallurgical Consultants Consultant Metallurgist/Director

I formed my own metallurgical consultancy in May 2006 and have continued to provide a service to the Litigation, P&I Clubs, underwriters and general marine fraternity with regard to metallurgical matters, casualty investigation - structural and machinery breakdowns, providing advisory and expert witness services mainly in relation to steel product cargoes but also with regard to other cargoes such as steel raw material cargos and some project cargo damages and claims

2002 to 2006

:

Taylor Marine TR Little, Liverpool, UK

Consultant Metallurgist / Director

Joined Taylor Marine TR Little (formerly Taylor Marine) at the beginning of 2002 to continue providing metallurgical consultancy services to marine and land based clients.

1997 to 2002

Alfred H. Knight Consultancy, St Helens, U.K.

Group Metallurgist



Curriculum Vitae – David Hughes Page 5 of 5

Principally employed as consultant metallurgist carrying out mainly marine casualty/failure investigations. I also provided managerial, technical and consultancy support in respect of ferrous related cargo matters (mainly steel products), worldwide including mill surveys, preshipment surveys, loadport surveys, discharge surveys, claims — shortages, damages, rusting, substandard/incorrect grades.

1990 to 1997

Ocean Fleets/

Atlantic Engineering (MBO from Ocean Fleets) Senior Metallurgist / Laboratory Manager.

Senior and Consultant Metallurgist responsible for carrying out metallurgical failure investigations for marine and land based companies, conducted over 900 investigations in seven years varying from small component failures to ship casualties. Also I managed the test house covering a wide range of mechanical testing (weld evaluation) and NDT services.

1988 to 1990

Italcable, Saudi Arabia

Materials Engineer / Quality Assurance

Italian consultancy company working in the Middle East and was responsible for trouble shooting/quality and specification compliance on plant/machinery, and products purchased as part of a multi-million pound long term project.

1970 to 1988

BICC Pyrotenax Ltd, UK - Senior Metallurgist

Progressed to position of Senior Metallurgist responsible for the day to day running of the metallurgical laboratory. Work scope was broad providing metallurgical support to many activities ranging from raw material quality problems to customer complaints, such as corrosion and mechanical plant and machinery failures.

Technical Education

1973 to 1975
1975 to 1977
1977 to 1980
ONC Chemistry
HNC Metallurgy including endorsements in Engineering, Manchester
Graduateship in Metallurgy (BSc Honours equivalent.) Manchester

Courses

- Part time course Ship Construction John Moores University, Liverpool
- Introduction to Gearing Engineering Course
- · Sliding & Liquid Film Bearings Engineering Course
- Rolling Bearings, Selection, Operation & Failure Engineering Course
- An Engineer's guide to Seals & Sealing Engineering Course
- Condition Monitoring Engineering Course

Representations

Senior Vice President, Liverpool and North Wales Metallurgical Society 1998.

Member of:

IOM³ – Institute of Material, Minerals and Mining. FEANI – European Federation of National Engineering Associations SNAME – The Society of Naval Architects & Marine Engineers (USA) ASTM – American Society for Testing and Materials ASM – (Formerly American Society of Metals)



CONTD PAGE - 2

ROLLER BEARINGS

105 NOS IN FORE PEAK STORE

A NOS WITH CH. ENGR

109 NOS TOTAL

TEFLON GUIDE PLATES

106 NOS IN FORE PEAK

1 NO. BROKEN IN HALF

4 NOS WITH CH. ENER.

III NOS TOTAL

WE THERE AFTER ASKED CH. ENAR TO CLEAN ALL THE WASHERS AND NUTS WITH KERDSINE FOR FURTHER INVESTIGATION.

WE THERE AFTER INSPECTED THE CRANE COLUMN (HOUSING)
WHICH WAS LYING ON THE JETTY ABREST BERTH NO. 13.
PART OF THE OUTERCAGE RING WITH 10 NUTS WAS STILL
ATTACHED TO THE BASE OF THE CRANE,

IT WAS DECIDED/AGREED TO CUT 4 STUDS. ONE WITH NUT & WASHER AND 3 PLAIN STUDS.

WE THEREAFTER WENT TO BERTH NO. 5 WHERE BROKEN PARTS

OF THE CRANE JIB AND DUTER CAGE WERE LYING. ONE

PIECE OF THE OUTERCAGE HAD BEEN SHIFTED BY OWNERS

APPOINTED WORKSHOP TO BERTH NO. 4B. WE WENT AND

INSPECTED THE PIECE OF THE DUTERCAGE. IT WAS

RECOMMENDED THAT 2 PIECES OF THE DUTERCAGE LYING

AT BERTH NO 4B WAS TO BE CUT AND PRESERVED

FOR FUTURE INSPECTION

QEO GAM / BM

so M.

CONTD PAGES

JOINT SURVEY REPORT MY. RISHIKESH

DATE: 17.04.08

PLACE : HALDIA

Time: 1030-1600 HRS

BERTH : No. 12. H.D.C.

THIS IS TO CERTIFY THAT THE FLWA PERSONNEL ATTENDED
THE VESSEL TO CARRY OUT JOINT SURVEY OF THE BROKEN
CRANE NO.1 AND ITS PARTS

- 1. MASTER OF THE VESSEL M.Y. RISHIKESH
- 2. HENDERSON INTERNATIONAL: ON BEHALF OF OWNERS PLI
- 3. MR. DAVID HUGHES: MARINE METALLURGICAL CONSULTATS LTD ON BEHALF OF CHARTERERS PLT
- 4. ERICSON & RICHARDS (HALDIA): ON BEHALF OF CHRTRS PLI
- 5. ORIENTAL INSURANCE G LTD: ON BEHALF OF HULL UNDERWRITER
- 6. INTERSPAN ENGR & TECHNOLOGICAL SERVICES: ON BEHALF OF MAKERS OF THE CRAM
- F MR. S. DASGUPTA MANAGER TECH OF THE SHIPPING GRPGRATION OF INDIA

ALL A NUTS, WASHERS, ROLLER BEARINGS AND TEFLON GUIDE RATES

OF THE OUTER CAGE WERE COLLECTED INSIDE FORE REAK

STORE. WE DETERMINED THE FLWG.

NUTS

18 Nos. ON BROKEN OUTERCAGE

8 NOS WITH CHIEF ENAR

31 NOS FORE PEAK STORE

4 NOS WITH OWNERS PLI

2 NOS WITH CRANE MANUFACTURERS REPRESENTATIVE

63 NOS TOTAL

WASHERS

18 NOS ON CRANE

4 NOS WITH CHENAR

45 Nes IN FORE PEAK STORE

67 NOS. TOTAL

SRO Ston KDH

De A

PAGE - 2

Document 10-3 Filed 05/22/2008 Page 62 of 65 Case 1:08-cv-04328-JSR PAGE 3

IT WAS DECIDED/AGREED THAT THE FLWG BE KEPT IN SAFE CUSTODY OF THE OFFICE OF THE SHIPPING CORPORATION OF INDIA.

- 2 PCS OF OUTER SLEWING RING
- 2. 4 NB. STUDS
- 49 Nas WASHERS
- 39 NOS NUTS PLUS 4 NOS WITH OWNERS PLI SURVEYOR TO BE RETURNED IN DUE COURSE

NOTE MR. LAURENCE MCFADYEN OF SACH SOLICITORS ON BEHALF CHRTRS PLI CLUB WAS PRESENT FOR THE 1ST HALF

OF THE SURVEY.

on behalf of Ourwoo Pill Sushra publique on behalt of Hull under

(hobos (on behalf of Mou)
Stery. BLM products)

CAPT.S.R. LOICHANDE

MASTER **M.V. RISHIKESH** ON BEHALF OF C

CHOINS PEI ON BEHALF OF

> कुट्टे भारतीय नीवहन निगम लि॰ वरिष्ठ प्रबन्धक (हिल्दबा)/Senior Manager (Haldia)

M.V. RISHIKESH

REPORT OF BLM DECK CRANE NO-1

<u> </u>	PMS ITEMS REQUIRED TO B	E CHECKED A	S PER REQUIRED P	O-1 EDIODICITY
SR.		CROSS	STATUS OF	COPY OF
NO	. MAINTAINANCE MANUAL	REFERENCI	E CARRYING OUT	
		IN PMS	THE	
		MANUAL	MAINTAINANC	CARRYING OUT
L			MANIATATATI	
1	CLEAN AIR FILTER		14.01.08, 15.02.08	MAINTAINANCE
	COEAN AIR FILTER	17.1.D	07.03.08	
2	INSPECT BLOWER FANS IN SWITCH	- -		2, 7 & 8
	GEAR ROOM	17.1.D	14.01.08, 15.02.08	
3	VACCUM CLEAN SWITCH GEAR ROOM		07.03.08	2, 7 & 8
3	& DUSTING OF ALL PCB	17.1.D	14.01.08, 15.02.08	,
	CLEAN CONTACTORS (SURFACES OF		07.03.08	2, 7 & 8
4	ELECTROMAGNETS) FOR		14.01.08, 15.02.08	, COPY PAGE NO.
4	CONTACTORS M & D AND ROTORIC	17.1.D	07.03.08	2,7 & 8
	CONTACTORS A1,A2,A3 A4 AND TIGHTEN ALL ELECT. TERMINALS			
5	CLEAN AND GREASE JOYSTIC			
3	CONTROLLER	17.1.D	14.01.08, 15.02.08,	COPY PAGE NO.
	MOTOR TERMINAL BOX - TO CHECK		07.03.08	2.7 & 8
6	TIGHTNESS OF CONNECTIONS / CHECK	17.1.D	18.01.08, 10.02.08,	COPY PAGE NO.
	⊥ FOR ANY MECH, DAMAGES		06.03.08	3,5 & 8
7	CHECK BRAKE LINING FOR WEAR, CHECK AIR GAP. (MAX PERMITTED 6	15.	17.01.08, 10.02.08,	-
	MM.)	17.1.D	06.03.08	3,5 & 8
8	CHECK TIGHTNESS OF MOTOR	10.15	19.01.08, 10.02.08,	
	FLANGE BOLTS	17.1.D	06.03.08	COPY PAGE NO.
	TO CHECK AND ADJUST	17.10	00.03.00	4, 5 & 8
	FOLLOWING SAFETIES.	17.1.B		
	JIB LIMITS TWO NUMBERS (MIN /	17.1.B.1	01.01.08, 11.02.08,	COPY PAGE NO.
9	MAX OUTREACH).	17.1. D .1	23.03.08	1,6&9
	JIB SLACK WIRE CUTOUT- ONE	17171	01.01.08, 11.02.08,	COPY PAGE NO.
	 	17.1.B.1	23.03.08	1,6&9
ļ	HOISTING SAFETY CUTOUTS FULL	17.1 D .	01.01.08, 11.02.08,	COPY PAGE NO.
	DRUM / SLACK WIRE- TOTAL 2 NOS.	17.1.B.1	23.03.08	1,6&9
10	CHECK OIL LEVEL, CONDITION OF		05.01.08, 11.02.08,	COPY PAGE NO.
	GEARS AND BEARINGS.	17.1.B.2	22.03.08	
1	CHECK TIGHTNESS OF FOUNDATION		05.01.08, 11.02.08,	1M, 3M & 5M
4	BOLTS	17.1.D	22.03.08	COPY PAGE NO.
2	CHECK OH SEALS BOD		05.01.08, 11.02.08,	1M, 3M & 5M
_	CHECK OIL SEALS FOR LEAKAGES	17.1.D	22.03.08	COPY PAGE NO.
3	CHECK SLEWING BEARING BOLTS	BML Circular		1M, 3M & 5M
ا	FOR TIGHTNESS	Fol 1/3	22.03.08	COPY PAGE NO.
		1011/2	22.03.06	1M, 3M & 5M

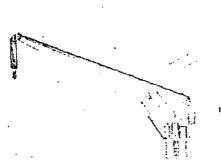
CHIEF ENGINEER

M. V. RISHIKESI



SLEWING BEARING BOLTING FOR CRANE MAINTENANCE INSTRUCTIONS

5/05/99 · JC W Ind. 1 Fol 1/3



Crané bolling as an essential part of the crane, has to be checked regularly.

The interval between inspections will vary according to the equipment and its use.

For a standard use, we recommend the followings:

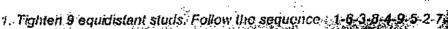
- Every two years, check the bolting tightening by using a short shock wrench and a mer range hammer (500/600g).
 Under a reasonable shock in tightening direction, the sound must be clear and the not must not rotate.
- · Every 7 years or / and after any dismautting of the studs/screws, replace them.

If during checking, one or some stud bolts (or scrows) are found released, all stud bolts (screws) have to be relightened.

If during the relightened operation , the recommended tension or torque can't be reached the stud or seriew must be replace .

Only bolts delivered and certified by BLM can assure the right litting of slewing bearing.

Fitting instructions



2. Tighten all stud bollsy follow the seguing a by, VI

3. Relighten the first Sealth bolts. V

4. Relighten all stort house Follow tho see show: 1. Ill.

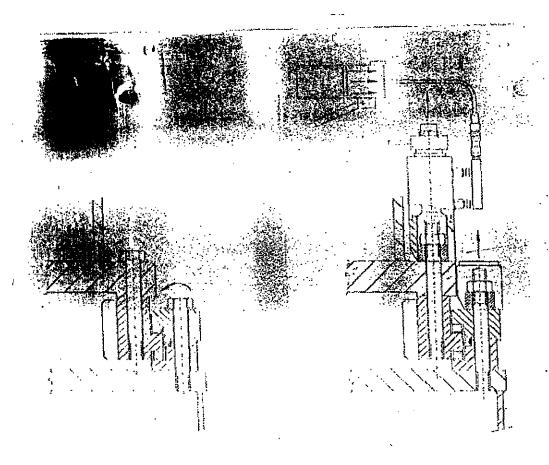
VIII

Refer to tightening force table (Fol 2/3)

A range of hydraulic tensioner is available in PUM as per hable (Fol 3/3)

Susan R St Ind F





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(549)	0748; 1341 O.L	(L) FOROS	321S
38/122/189	MARKARI	DARGUIDU	.1708 GUTS

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K;M	
A. 6. 16 18 16 '	

SNOLLDHUESNI IONVNILHIVIV ANVALORO DMLETIS URVIGNO BOLLBUTS



EXHIBIT 3

"SECOND ORIGINAL"

Time Charter

GOVERNMENT FORM

Approved by the New York Produce Exchange November 6th, 1913-Amended October 20th, 1921; August 6th, 1931; October 3rd, 1946

1. 2.	This Charter Party, made and concluded in Singapore
3.	Owners of the good Indian flag steamship/Motorship "MV RISHIKESH"ofbuilt 1986
4.	of 28739 tons gross register, and
5.	and with hull, machinery and equipment in a thoroughly efficient state, and classed IRS
6	at
7.	deadweight capacity (cargo and bunkers, including fresh water and stores not exceeding one and one-half percent of ship's deadweight capacity,
8.	allowing a minimum of fifty tons) on a draft of11.83 MTRS—feet inches Summer freeboard, inclusive of permanent bunkers,
9.	which are of the capacity of about tons of fuel, and capable of steaming, fully laden, under good weather
10.	conditions, Beaufort scale 4 and Douglas sea state 3 about13 knots on a consumption of about26.5 metric tons IFO (380 CST)
	PLUS about 2.7 metric tons MDO at sea. In port idle about 2.5 metric tons MDO/working about 3.0 metric tons MDO (See
	Clause No. 31).
	best Welsh coal-best grade fuel oil-best grade Diesel oil
11.	now trading
12.	
	069533 Charterers of the City of Singapore
13.	Witnesseth, That the said Owners agree to let, and the said Charterers agree to hire the said vessel, from the time of delivery, for
	about one time charter trip via safe berth(s), safe port(s), safe anchorage(s), always afloat always accessible always in
14.	
15.	lawful trade, always within Institute warranty limits with lawful harmless cargoes, Intention one time charter trip with Iron ore via East Coast
	India to China. Vessel to be always left in safe trim / stability and other conditions that could be required for safe navigation within ports as
	well as at sea passages, duration for about 25-35 days within below mentioned trading limits
16.	Charterers to have liberty to sublet the vessel for all or any part of the time covered by this Charter, but Charterers remaining responsible for
17.	the fulfillment of this Charter Party. Acceptance of delivery of the vessel by Charterers shall not constitute any waiver of Owners'
	obligation hereunder
18.	Vessel to be placed at the disposal of the Charterers, at on dropping last outward sea pilot charterers option When Where Ready
	HALDIA. Option to be declared by charterers 2 working days prior vessel's readiness. In case delivery WWR Haldia, Owners will
19.	provide vessel with holds swept clean only and not washed.
20.	in such dock or at such wharf or place (where she may safely lie, always afloat, at all times of tide, except as otherwise provided in clause No.6), as
21.	the Charterers may direct. If such dock, wharf or place be not available time to count as provided for in clause No.5. Vessel on her delivery to be
22.	ready to receive intended cargo with clean-swept holds and tight, staunch, strong and in every way fitted for intended cargo, the service, having
	water ballast, winches and
23.	
	described winches at one and the same
24.	
	employed, in carrying lawful merchandise
25.	-including petroleum or its products, in proper containers.
26.	(vessel is not to be employed in the carriage of Live Stock, but Charterers are to have the privilege of shipping a small number on deck at their risk,
27.	all necessary fittings and other requirements to be for account of Charterers), in such lawful trades, between safe port and/or ports in British North
28.	America, and/or United States of America, and/or West Indies, and/or Central America, and/or Caribbean Sea, and/or Gulf of Mexico,
30	and/or
29.	Mexico, and/or South America and/or Europe
30.	and/or Africa, and/or Asia, and/or Australia, and/or Tasmania, and/or New Zealand, but excluding Magdalena River, River St. Lawrence between
31.	October 31st and May 15th, Hudson Bay and all unsafe ports; also excluding, when out of season, White Sea, Black Sea and the Baltic
	(See Clause No. 64)
32.	
33.	
34.	
35.	as the Charterers or their Agents shall direct, on the following conditions:
36.	1. That whilst on hire the Owners shall provide and pay for fresh water, lubricating oil and all provisions, wages including all officer's and crew's
	overtime and consular shipping and discharging fees of the Crew; shall pay for the
37.	insurance of the vessel, also for all the entire cabin, deck, engine-room and other necessary stores, including boiler water and maintain her class and keep
38.	the vessel in a thoroughly efficient state in hull, machinery and equipment with all certificate(s) issued by the vessel's classification society for
	and during the service.

- 39. 2. That the Charterers shall provide and pay for all the fuel except otherwise agreed, Port Charges, Compulsory, Customary Pilotages, Agencies for clearance and cargo work only also for other charges relating to routine work apart from owners matter (see clause no. 43) Pilotages, Agencies, Commissions,
- 40. Consular Charges (except those pertaining to the Crew), and all other usual expenses except those before stated, but when the vessel puts into
- 41. a port for causes for which Owners are vessel is responsible, then all such charges incurred shall be paid by the Owners. Fumigations ordered because of
- 42. illness of the crew to be for Owners account. Furnigations ordered because of cargoes carried or ports visited while vessel is employed under this
- 43. charter to be for Charterers account. All other fumigations to be for Charterers account after vessel has been on charter for a continuous period 44. of six months or more.
- Charterers are to provide necessary dunnage lashing materials and shifting boards, also any extra fittings requisite for a special trade or unusual cargo, but
- 46. Owners to allow them the use of any dunnage, and shifting boards already aboard vessel. Charterers to have the privilege of using shifting boards
- 47. for dunnage, they making good any damage thereto.
- 3. That the Charterers, at the port of on delivery, and the Owners, on at the port of re-delivery, shall take over and pay for all fuel remaining on
- 49 board the vessel at the current prices in the respective ports, the vessel to be delivered with not less than tons and not more than
- 50. tons and to be re-delivered with not less than tons and not more than tons.
- 51. 4. That the Charterers shall pay for the use and hire of the said Vessel at the rate of...... USD 80,000/- (United States Dollars Eighty thousand only) daily including over time payable every 15 days in advance to owner's nominated bank account in United states Dollars in London
- 52. per day pro rata: First 15 days charter hire and value of bunker consumption up to Singapore to be paid within two banking days of vessel's delivery. Charterers are entitled to deduct value of bunkers paid for on delivery from last sufficient charter hire per ton on vessel's total deadweight carrying capacity, including bunkers and
- 53. stores, on summer freeboard, per Calendar Month, commencing on and from the day-time of her delivery, as aforesaid, and at
- 54. and after the same rate for any part of a day month; hire to continue until the hour of the day of her re-delivery in like good order and condition, ordinary
- wear and tear excepted, to the Owners (unless lost) on dropping last outward sea pilot One Safe port P.R. China port in charterers option any time day or night Sundays or holidays included. Charterers to advise definite discharge port on passing Singapore.
- 56.unless otherwise mutually agreed. Charterers are to give Owners not less than15/7/5/3/2.... days approximate and 24 hours definite
- 57. notice of vessel's expected date of re-delivery, and probable port. Charterers to keep owners advised of vessel's movements and notify owners immediately of unforeseen delay.
- 58. 5. Payment of said hire and value of estimated consumable bunkers to be made in Owners' designated bank account New York in United States Currency 15 days semi-monthly-in advance, and for the last 15 days half month or
- 59. part of same the approximate amount of hire, and should same not cover the actual time, hire is to be paid for the balance day by day, as it becomes
- 60 due, if so required by Owners, unless bank guarantee or deposit is made by the Charterers, otherwise failing the punctual and regular payment of the
- 61. hire, or bank guarantee, or on any breach of this Charter Party, the Owners shall be at liberty to withdraw the vessel from the service of the Chart
- 62. terers, without prejudice to any claim they (the Owners) may otherwise have on the Charterers. Time to count from 7 a.m. on the working day
- 63. following that on which written notice of readiness has been give to Charterers or their Agents before 4 p.m., but if required by Charterers, they
 64. to have the privilege of using vessel at once, such time used to count as hire.
- Cash for vessel's ordinary disbursements at any port may be advanced as required by the Captain, by the Charterers or their Agents, subject to 2½% commission and such advances shall be deducted from the hire. The Charterers, however, shall in no way be responsible for the application of such advances.
- 68. 6. That the cargo or cargoes be laden and/or discharged in any safe dock or at any safe wharf or safe place that Charterers or their Agents may
- 69. direct, provided the vessel can safely lie always afloat at any time of tide, except at such places where it is customary for similar size vessel to safely 70. lie aground.
- 71. 7. That the whole reach of the Vessel's Hold, Decks, and usual place of loading (not more than she can reasonably stow and carry), also accommodations for Supercargo, if carried, shall be at the Charterers' disposal, reserving only proper and sufficient space for Ship's officers, crew, tackle, apparel, furniture, provisions, stores and fuel. Charterers have the privilege of passengers as far as accommodations allow, Charterers paying Owners per day per passenger for accommodations and meals. However, it is agreed that in case any fines or extra expenses are incurred in the consequence of the carriage of passengers, Charterers are to bear such risk and expense. No passengers.
- 76. 8. That the Captain shall prosecute his voyages with the utmost despatch, and shall render all customary assistance with ship's crew and
 77. boats. The Captain (although appointed by the Owners), shall be under the orders and directions of the Charterers as regards employment and
- 78. agency; and Charterers are to load, stow, and trim, tally, lash, secure and discharge the cargo at their expense under the supervision of the Captain, but such stowage shall be directed under the supervision to the master and the master to take best efforts to assure delivery of the cargo to charterers / their agents who is to sign Bills of Lading for
- 79. cargo as presented, in conformity with Mate's or Tally Clerk's receipts.
- 80. 9. That if the Charterers shall have reason to be dissatisfied with the conduct of the Captain, Officers, or Engineers, the Owners shall on 81. receiving particulars of the complaint, investigate the same, and, if necessary make a change in the appointments.

- 82. 10. That the Charterers shall have permission to appoint a Supercargo, who shall accompany the vessel and see that voyages are prosecuted
 83. with the utmost despatch. He is to be furnished with free accommodation, and same fare as provided for Captain's table, Charterers paying at the
 84. rate of \$ 5.00 \$1.00 per day. Owners to victual Pilots and Customs Officers, and also, when authorized by Charterers or their Agents, to victual Tally
 85. Clerks, Stevedore's Foreman, etc., Charterers paying at the current rate per meal, for all such victualling, See Clause no 87.
- 11. That the Charterers shall furnish the Captain from time to time with all requisite instructions and sailing directions, in writing, and the
 Captain shall keep a full and correct Log of the voyage or voyages, which are to be patent to the Charterers or their Agents, and furnish the Charterers, their Agents or Supercargo, when required, with a legible deck and entire true copy of daily Logs, in English language showing the course of the vessel and distance run and the con-
- 89. sumption of fuel.

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- 12. That the Captain shall use diligence in caring for the ventilation of the cargo.
- 13. That the Charterers shall have the option of continuing this charter for a further period of

- not have given written notice of readiness on or before........ 2400 hours 4th April 2008but not later than 4 p.m. Charterers or their Agents to have the option of cancelling this Charter at any time not later than the day of vessel's readiness.
- 97. 15. That in the event of the loss of time from deficiency and/or default of men and/or strikes or sabotage of officers/ crew or deficiency of stores, fire, breakdown or damages to hull, machinery or equipment
- 98. grounding, detention by average accidents to ship or cargo, drydocking for the purpose of examination or painting bottom, or by any other cause 99. preventing the full working of the vessel, the payment of hire shall cease for the time thereby lost; and if upon the voyage the speed be reduced by
- 100. defect in or breakdown of any part of her hull, machinery or equipment, the time so lost, and the cost of any extra fuel consumed in consequence 101. thereof, and all extra expenses shall be deducted from the hire. Any stevedore and/or harbor charges for breakdown of vessel's equipment not
- caused by charterers or their agent or their stevedores to be for owners account.

 102. 16. That should the Vessel be lost, money paid in advance and not earned (reckoning from the date of loss or being last heard of) shall be
- 103. returned to the Charterers at once. The act of God, enemies, fire, restraint of Princes, Rulers and People, and all dangers and accidents of the Seas, 104. Rivers, Machinery, Boilers and Steam Navigation, and errors of Navigation throughout this Charter Party, always mutually excepted.

 The vessel shall have the liberty to sail with or without pilots to tow and to be towed to assist vessel in distress, and to deviate for the
- The vessel shall have the liberty to sail with or without pilots, to tow and to be towed, to assist vessel in distress, and to deviate for the 106. purpose of saving life and property.
- 107. That should any dispute arise between Owners and the Charterers, the matter in dispute shall be referred to three persons at London.
 108. one to be appointed by each of the parties hereto, and the third by the two so chosen; their decision or that of any two of them, shall be final, and for
 109. the purpose of enforcing any award, this agreement may be made a rule of the Court. The Arbitrators shall be shipping men conversant with shipping matters. Arbitration in London, English law to apply.
- 110. 18. That the Owners shall have a lien upon all cargoes, and all sub-freights / sub-hires for any amounts due under this Charter, including General Aver-
- 111. age contributions, and the Charterers to have a lien on the Ship for all monies paid in advance and not earned, and any overpaid hire or excess
- 112. deposit to be returned at once. Charterers will not suffer, nor permit to be continued, any lien or encumbrance incurred by them or their agents, which 113. might have priority over the title and interest of the owners in the vessel.
- 114. 19. That all derelicts and salvage shall be for Owners' and Charterers' equal benefit after deducting Owners' and Charterers' expenses and 115. Crew's proportion. General Average shall be adjusted, stated and settled, according to Rules 1 to 15, inclusive, 17 to 22, inclusive, and Rule F of
- 116. York-Antwerp Rules 1994 and subsequent amendments, in london 1924, at such port or place in the United States as may be selected by the carrier, and as to matters not provided for by these
- 117. Rules, according to the laws and usages at the port of New York. London In such adjustment disbursements in foreign currencies shall be exchanged into
- 118. United States money at the rate prevailing on the dates made and allowances for damage to cargo claimed in foreign currency shall be converted at
- 119. the rate prevailing on the last day of discharge at the port or place of final discharge of such damaged cargo from the ship. Average agreement or
- 120. bond and such additional security, as may be required by the carrier, must be furnished before delivery of the goods. Such cash deposit as the carrier
- 121. or his agents may deem sufficient as additional security for the contribution of the goods and for any salvage and special charges thereon, shall, if
- 122. required, be made by the goods, shippers, consignees or owners of the goods to the carrier before delivery. Such deposit shall, at the option of the
- 123. carrier, be payable in United States money and be remitted to the adjuster. When so remitted the deposit shall be held in a special account at the
- 124. place of adjustment in the name of the adjuster pending settlement of the General Average and refunds or credit balances, if any, shall be paid in 125. United States money.
- 126. In the event of accident, danger, damage, or disaster, before or after commencement of the voyage resulting from any cause whatsoever, 127. whether due to negligence or not, for which, or for the consequence of which, the carrier is not responsible, by statute, contract, or otherwise, the 128. goods, the shipper and the consignee, jointly and severally, shall contribute with the carrier in general average to the payment of any sacrifices, 129. losses, or expenses of a general average nature that may be made or incurred, and shall have solven and special charges incurred in respect of the
- 129. losses, or expenses of a general average nature that may be made or incurred, and shall pay salvage and special charges incurred in respect of the
- 130. goods. If a salving ship is owned or operated by the carrier, salvage shall be paid for as fully and in the same manner as if such salving ship or 131. ships belonged to strangers.
- Provisions as to General Average in accordance with the above are to be included in all bills of lading issued hereunder. It is understood that the charter hire is not to contribute to General Average.

133.	20. Fuel/used by the vessel while off hire, also for cooking, condensing water, or for grates and stoves to be agreed to as to quantity, and the
134.	cost of replacing same, to be allowed by Owners.
135.	21. That as the vessel may be from time to time employed in tropical waters during the term of this Charter, Vessel is to be docked at a
136.	convenient place, bottom cleaned and painted whenever Charterers and Captain think necessary at least once in every six months, reckoning from
137.	time of last painting, and payment of the hire to be suspended until she is again in proper state for the service.
138.	Vessel not to be drydocked whilst performing this charter party unless in case of emergency
139.	
140.	22. Owners shall maintain the gear of the ship as fitted, providing gear (for all cargo gears as described derricks) capable of handling
	lifts up to as specified in clause 31. Owners to provide on the vessel electric light for night work as on board at all hatches simultaneously
	free of cost to the charterers and are to maintain same in efficient work condition throughout this charter three tons, also
	providing ropes, falls, slings and blocks. If vessel is fitted with derricks capable of handing heavier lifts, Owners are to provide necessary gear for
142.	same, otherwise equipment and gear for heavier lifts shall be for Charterers' account. Owners also to provide on the vessel sufficient lights as on
	board for night work in all holds simultaneously lanterns and oil for
143.	night work, and vessel to give use of electric light when so fitted, but any additional lights over those on board to be at Charterers' expense. The
144.	Charterers to have the use of any gear on board the vessel.
145.	23. Vessel to work night and day, Sundays and holidays, included if required by Charterers, and all cargo gear as described to be at charterers
	disposal at all times simultaneously during loading and discharging operations. Shore winchmen in loading / discharging to be employed and
	paid by charterers. Winches to be at Charterers' disposal during loading and discharging.
146.	steamer to provide one winchman per hatch to work winches day and night, as required, Charterers agreeing to pay officers, engineers, winchmen,
	deck hands and donkeymen for overtime work done in accordance with the working hours and rates stated in the ship's articles. If the rules of the
	port, or labour unions, prevent crew from driving winches, shore Winchmen to be paid by Charterers, In the event of a disabled winch or winches, or
149.	insufficient power to operate winches, Owners to pay for shore engine, or engines, in lieu thereof, if required, and pay any loss of time occasioned
150.	thereby, See Clauseno. 50.
151.	24. It is also mutually agreed that this Charter is subject all the terms and provisions of and all the exemptions from liability contained
152.	in the Act of Congress of the United States approved on the 13th day of February, 1893, and entitled "An Act relating to Navigation of Vessels;
	etc., "in respect of all cargo shipped under this charter to or from the United States of America. It is further subject to the following clause, both
154.	of which are to be included in all bills of lading issued hereunder:
155.	U.S.A. Clause Paramount
156.	This bill of loading shall have effect subject to the provisions of the Carriage of Goods by Sea Act of the United States, approved April
157.	16, 1936, which shall be deemed to be incorporated herein, and nothing herein contained shall be deemed a surrender by the carrier of
158.	any of its rights or immunities or an increase of any of its responsibilities or liabilities under said Act. If any terms of this bill of lading
159.	be repugnant to said Act any extent, such terms shall be void to that extent, but no further.
160.	Both to Blame Collision Clause
161.	If the ship—comes into collision—with another ship as—a result of the negligence—of the other ship—and any act,—neglect or—default of the
162.	Master, mariner, pilot or the servants of the Carrier in the navigation or in the management of the ship, the owners of the goods carried
163.	hereunder will indemnify the Carrier against all loss or liability to the other or non-carrying ship or her owners in so far as such loss
164.	or liability represents loss of, or damage to, or any claim whatsoever of the owners of said goods, paid or payable by the other or non-
165.	carrying ship or her owners to the owners of said goods and set off, recouped or recovered by the other or non-carrying ship or her
166.	owners as part of their claim against the carrying ship or carrier. (see clause no. 40)
167.	25. The vessel shall not be required to enter any ice-bound port, or any port where lights or light-ships have been or are about to be with-
	drawn by reason of ice, or where there is risk that in the ordinary course of things the vessel will not be able on account of ice to safely enter the
	port or to get out after having completed loading or discharging.
170.	26. Nothing herein stated is to be construed as a demise of the vessel to the Time Charterers. The owners to remain responsible for the
171.	navigation of the vessel, act of pilots and tug-boats insurance, crew, and all other matters, same as when trading for their own account.
172.	27. A commission of 1.25 2.5 per cent is payable by the Vessel and Owners to M/s Globus.
173.	
	on hire earned and paid under this Charter, and also upon any continuation or extension of this Charter.
175.	28. An address commission of 3.75 per cent payable to <i>Charterers</i>
	on the hire earned and paid under this Charter.
	•

Clause 29-94 both inclusive as attached are to be fully incorporated in this charter party.

Owners: Charterers:

Clause 29 Hire Payment Clause:

THROUGH CORRESPONDING BANK, CITIBANK,NEW YORK SWIFT CODE. CITIUS33 ACCOUNT STATE BANK OF INDIA, LONDON U.K. ACCOUNT NO. 36002753

FOR FURTHER CREDIT TO STATE BANK OF INDIA STATE BANK OF INDIA BUILDING 15 KING STREET, LONDON EC2V8EA SWIFT CODE. SBINGB2L

FOR BENEFICIARY - THE SHIPPING CORPORATION OF INDIA LTD., MUMBAI US DOLLAR ACCOUNT NO. 0001-108021-103
REF: MV RISHIKESH ACCT JALDHI OVERSEAS PTE LTD-CP DD 12.03.08

- A) First 15 days charter hire and value of bunkers consumption upto Singapore to be paid within 2 banking days of vessel's delivery. Charterers are entitled to deduct value of bunkers paid for on delivery from last sufficient charter hire. Charterers not to deduct any amount towards owners disbursements as owners have their own protective agents at all ports of call.
- B) Where there is any failure to make "punctual and regular payment" due to oversight or negligence or error or omission of Charterers' employees, bankers or agents or otherwise for any reason where there is absence of intention to fail to make payment as set out. Charterers shall be given by Owners 3 (three) banking days written notice to rectify the failure and where so rectified the payment shall stand as "punctual and regular payment".

Any time after the expiry of notice as above if hire is still outstanding the owners shall be absolutely entitled to withhold the performance of any of their obligation hereunder and shall have no responsibility whatsoever for any consequences thereof in respect of which the Charterers hereby indemnify the Owners and shall continue to accrue and any extra expenses resulting from such withholding shall be Charterers' account.

- C) In the event that the vessel is expected to be redelivered to the Owners prior to the expiry of the last 10 days period that would be covered by the next payment of hire. Charterers are entitled to make the last sufficient hire payment(s) according to the balance duration of the hire based on vessel's itinerary and discharging schedule/berth line-ups and the consequent reasonably estimated time of redelivery and not before then.
- D) Cash money drawn by the Master shall be taken at the office of the port agents or shall be drawn by the Master from the bank. In the event that the Master requests delivery of cash money at the vessel, all risks and expenses involved in arranging and making such delivery of cash money to the vessel shall be borne by the owners.

Clause 30

Bunkers on delivery -- TO BE ADVISED

Quantities on redelivery to be about same as actually on delivery. Along with first hire charterers to pay value of bunker consumption upto Singapore. Bunker price both ends ifo: usd 490 / mdo: usd 920. The charterers shall supply bunkers of a quality suitable for burning in the vessel's main engines and auxiliaries. Charterers to replenish bunkers in Singapore to make bunkers on redelivery about same as bunkers on delivery.

Vessel has sufficient bunkers to reach Singapore after completion of loading in East coast India with safety margin under normal acceptable time taken for loading. In case there are unforeseen delays including berthing delays then charterers to remain responsible for quantity of bunkers till Singapore. The charterers shall supply bunkers of a quality suitable for burning in the Vessel's main engines and auxiliaries.

Specs: IFO 380 CST , MDO grade not less than DMB.

The owners reserve their right to make claim against the charterers during the currency of the charter period and/or after completion of charter period for any damage to the main engines and auxiliaries caused by the use of unsuitable fuels or fuels not complying with the agreed specifications. Further, if the fuels supplied prove unsuitable for burning in the vessel's main engines and auxiliaries, the owners shall not be held responsible for any reduction in the vessel's speed performance and/or increased bunker consumption, nor for any time lost and any other consequences.

BIMCO FUEL SULPHER CONTENT CLAUSE:

Notwithstanding anything else contained in this charter party, the charterers shall supply fuels of such specifications and grades to permit the vessel, at all times, to meet the maximum sulpher content requirements of any emission control zone when the vessel is trading within that zone. the charterers shall indemnify, defend and hold harmless the owners in respect of any loss, liability, delay, fines, costs or expenses arising or resulting from the charterers failure to comply with this clause.

For the purpose of this clause, "emission control zone" shall mean zones as stipulated in MARPOL ANNEX VI and/or zones regulated by regional and/or national authorities such as, but not limited to the EU and the US environmental protection agency.

Clause 31 Description of Vessel

MV RISHIKESH

BUILT 86 / INDIAN FLAG / CLASS IRS / SDBC

DWT 47,316 ON 11.83 MTRS GRT / NRT : 28,739 / 15,763 LOA / BEAM : 189 / 30.40 M

GRAIN / BALE : 55,215.30 / 53,749 CBM

5 HOLDS / 5 HATCHES

CRANES: 5 X 25TS SWL, CRANES SERVING ALL HOLDS GRABS: 5 X 8 CBM GRABS (FOR COAL/COKE ONLY)

IF SHORE GRABS USED WEIGHT OF CARGO+GRABS NOT TO EXCEED 18MT

TPC: 53.2MT (FULLY LADEN)

SPEED: 13KNOTS ON CONSUMPTION OF 26.5 IFO + 2.7 MDO

PORT IDLE/WORKING : 2.50/3.00MT MDO

ALL DETAILS ABOUT

VESSEL'S ITINERARY - ETA ECINDIA INENTION VIZAG 19TH MARCH AGW WP UCE AND EXPECTED TO BE DLOSP HALDIA ON AROUND 26/27TH MARCH AGW WP UCE

OWNERS HAVE SENT COPIES OF VESSEL'S FOLLOWING CERTIFICATES:

-PNI

-CERTIFICATE OF CLASS

- -INTERNATIONAL SHIP SECURITY CERTIFICATE
- -INTERNATIONAL LOADLINE CERTIFICATE
- -CERTIFICATE OF INDIAN REGISTRY
- INTERNATIONAL TONNAGE CERTIFICATE
- -DOC
- SMC
- HNM

Clause 32

Joint on and off hire survey to be carried out on delivery and redelivery port to ascertain the vessel's condition and bunker quantities remaining on board on delivery/redelivery by one surveyor acceptable to both the parties. Time for on-hire survey to be for Owners' account and time for off-hire survey to be for Charterers' account but the cost to be equally shared between both parties.

Clause 33

Both parties to have the option of canceling this Charter Party provided no cargo on board, with reasonable notice, if war breaks out between any two or more of the following countries to such an extent as to render the continuation of the Charter Party impossible: U.S.A ,Great Britain, Japan, C.I.S. The People's Republic of China, France, Republic of Korea, Thailand, South Korea.

Clause 34

In the event of any loss of time either in port or at sea, deviation upon the course of the voyage or putting back whilst on voyage, caused by sickness of or an accident to the crew or any person on board the vessel other than persons traveling by request of Charterers or by reason of the refusal of the captain or crew to perform their duties of an accident or breakdown of the vessel, the hire shall be suspended from the time of inefficiency in port or at sea, deviation or putting back until the vessel is again efficient in the same position or regains the line of voyage whichever is the shorter distance for a port where the vessel is originally destined for and voyage resumed there from, and all expenses incurred including bunkers consumed during such period of suspension shall be for Owners account.

Clause 35

Charterers shall not in any event be liable for claims in connection with stevedore damage suffered by the vessel and/or equipment unless:

- A. Master advises Charterers or their agents in writing or by cable within 48 (forty eight) hours of occurrence of any damage for which Master considers Charterers liable so that Charterers may claim against stevedores or parties responsible, except in case of hidden damage, which are to reported as soon as discovered by no later than redelivery of the vessel.
- В. Such damage shall have been entered in vessel's logbooks and
- C. Master shall endeavour best have held stevedores or parties responsible for damage liable in writing or by cable with copy to Charterers.

If extent of damage cannot be ascertained on occurrence, Owners/ Master must report occurrence of damage in accordance with (A), (B), and (C) as above and details may follow when examination possible.

If at time of redelivery, there remains outstanding damage for which Charterers may be liable but which, without affecting the seaworthiness and cargo operation of the vessel, can be repaired by Owners at any convenient time after redelivery.

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RIDER CLAUSE TO MV RISHIKESH / JALDHI OVERSEAS PTE. LTD. CHARTER PARTY DATED 12.03.2008

Owners undertake to accept as above. Charterers undertake to reimburse Owners cost of repairs as ascertained later by mutually agreed surveyor when repairs are carried out and liabilities established or to be settled at a lumpsum amount agreeable by both parties. However, all damage affecting vessel's seaworthiness, cargo worthiness to be repaired by Charterers at Charterers time and cost prior redelivery.

Clause 36

Vessel to be delivered with valid deratisation exemption certificate on board, and if this does not cover the whole period of timecharter and fumigation is necessary due to above reasons, cost of same and detention to be for Owner's account.

Clause 37

Owners and Master to undertake best efforts to cooperate with Charterers for best stowage of cargo. Owners and Master also undertake to cooperate with Charterers in taking necessary steps for cargo fumigation, if necessary at Charterers' time, risk expenses.

Clause 38

Vessel to possess the necessary certificates to comply with safety and health regulation and current requirements at the intended ports of call.

Clause 39

Deleted

Clause 40

Conwartime 2004, Ice Clause, New Jason Clause, General Paramount Clause, New Both to Blame Collision Clause and Chamber of Shipping Nuclear Clause, as attached to be considered part of this Charter Party, General Paramount Clause to be inserted in all Bills of Lading issued hereunder.

Clause 41

Vessel's hold on delivery to be clean swept so as to receive charterers intended cargoes in all respects, free of salt, loose rust scale and previous cargo residue to the satisfaction of the on-hire surveyor. If vessel fails to pass any hold inspection the vessel should be placed off-hire from time of the rejection until the vessel passes the same inspection again and any direct expenses incurred thereof to be for owners account.

Clause 42

Charterers undertake to keep Owners and Master informed during the period as regards the itinerary of the vessel and the name of their agents at ports of call, prior to calling to the said port.

It is understood that charterers will employ their own agents at load and discharge port(s).

Clause 43

Owners to appoint Owners' agents to attend Owners' matters such as General Average, dry-docking,major repairs, supply of stores/provisions, repatriation of crew ,permission of harbour control system etc. Owners are allowed to use Charterers agents for minor husbandry matters which includes to Master crew mail, supply of water, shore passes of crew, being debited actual expenses and Charterers agree that their agents will not charge Owners any agency fee for the above services.

Clause 44 Deleted

Clause 45

Owners confirm that vessel's hatch covers are to be watertight all throughout this Charter period and if hatch cover(s) found defective, same to be rectified at Owners' time and expense to Charterers satisfaction. Charterers also have the right to carry hose test on all hatches anytime during the charter period.

Clause 46

Owners will instruct crew to perform services, such as all opening and closing of hatches and trimming of cargo gear, free of charge to Charterers, if shore regulations, so permit, otherwise to be at Charterers' risk and expense.

Clause 47

Owners guarantee that vessel is entered with a P and I Club. Charterers have the benefit of Owners' P and I Club as the Club's rules permit

Owners P and I club:

Charterers P and I Club:

Clause 48

If the vessel is off-hire for any valid reason as per terms/conditions of this Charter Party for a consecutive period of 15 (fifteen) days, Charterers have the right to cancel this Charter Party without any further obligations under this contract on the part of the Charterers provided no cargo loaded on board.

Clause 49

All taxes, dues and charges on the vessel and/or cargo and/or charter hire and/or freight arising out of cargoes carried or port visited under this charter to be for charterers account. Any taxes levied by the vessel's country of domicile to be for owners account.

Clause 50

Cargo gear to be fully efficient state as described during the currency of time charter. In the event of breakdown of cargo gears by reason of disablement or insufficient power or otherwise, the hire and all direct expenses/time loss to be reduced pro rata for the period of such an insufficiency in proportion to the number of cargo gears available on board.

If Charterers elect to continue work on hatch or hatches affected by breakdown by hiring shore appliances, Owners are to pay for such shore appliances and vessel remains on hire fully. Shore cranes to be hired only after taking prior consent of Master/ Owners. Owners guarantee that all vessel's gear are in good working condition. However Charterers must appreciate that being mechanical equipment any breakdown will have to be dealt with according to the relevant charter party.

Clause 51

Vessel's engine and bridge are located aft.

Clause 52

In case of loss of time due to boycott, picket at any port or place by the shore and/or port labour and/or linesmen and/or pilot and/or tug-boats and/or by governmental authorities directly attributable to flag. Ownership and/or the terms and conditions on which captain, officers and members of crew were employed or other events, for

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RIDER CLAUSE TO MV RISHIKESH / JALDHI OVERSEAS PTE. LTD. CHARTER PARTY DATED 12.03.2008

which Owners are solely responsible. Immobilizing the vessel then to be off-hired for any time lost thereby and the cost of bunkers consumed during the period to be for Owners account.

Clause 53

Liabilities for cargo claims shall be borne by Owners/time Charterers in accordance with the Interclub New York Produce Exchange Agreement in February 1970 and reprints of May 1996.

The party having paid the claim shall submit to the other party supporting documents as soon as possible. Neither party shall between themselves refer to the 1 year time as a defence as long as notification of claims is brought within 1 year period.

Clause 54

Any delay, expenses and/or fines incurred on account of smuggling, if caused by Master, Officers and/or crew to be for Owners' account.

Clause 55

Charterers and supercargoes to have the right of using the vessel's means of communication at cost.

Clause 56

Charterers to supply fresh water at Owners' account if required during this Charter except the same used for Charterers business which to be for Charterers' account. If vessel deviated/cargo work stopped to receive fresh water, all time/expenses to be for Owner's account unless if used for Charterers' business.

Clause 57

All negotiations and eventual fixture to be kept top private and confidential.

Clause 58 Deleted

Clause 59 Deleted

Clause 60 Deleted

Clause 61

Charterers have the privilege to use forklifts on board in all holds always in accordance with requirement of tank top strength subject to Master's approval which shall not be unreasonably withheld. Forklifts to have rubber tyres only.

Clause 62

Time on delivery/redelivery to be based on G.M.T. But for laycan purpose Local Time to apply.

Clause 63

GA/Arbitration in London, English law to apply.

Clause 64

Trading exclusions

CAMBODIA, NAMIBIA, ERITREA, TURKISH OCCUPIED CYPRUS, ISRAEL AND ITS CONTROLLED TERRITORIES, CUBA, PAKISTAN, SOMALIA, ETHIOPIA, SUDAN, MYANMAR, BANGLADESH, ANGOLA, NIGERIA, LEBANON, N.KOREA, IRAQ, LIBYA, SYRIA, YEMEN, RUSSIA/ CIS PACIFIC PORTS, HAITI ISLAND, YUGOSLAVIA AND ITS EX-REPUBLICS, ALBANIA, BENIN, DEM.REP.OF CONGO, EQUITORIAN GUINEA, GUINEA, GUINEA-BISSAU, KIRIBATI, LIBERIA, MADAGASCAR, MOZAMBIQUE, NAURU, SERBIA AND MONTENEGRO, SIERRA LEONE, SOLOMON ISLANDS, SURINAM, TUNISIA, CANADA, AND Countries where conditions of hostilities exist and war or war like areas, areas to which U.N. sanctions apply or may apply from time to time.

Vessel not to trade in ice or ice bound ports or to force ice or follow ice breakers.

Vessel not to trade in areas where lights/buovs are likely to be withdrawn due to ice / weather conditions.

Vessel not to be sub-chartered to companies based in above countries.

Vessel not to trade in areas having war / warlike conditions. "conwartime 2004 clause" to apply.

BIMCO ice clause to apply

Cargo Exclusions:

Cargo allowed iron ore in bulk only. All other cargoes excluded.

Clause 65

Charterers to supply and pay for dunnage/lashing/securing, mats, equipment but Charterers have the option to use any lashing equipment as on board. However, Charterers to replace same prior to redelivery, fair wear and tear excepted.

Clause 66

Gangway watchmen, if any, at loading and/or discharging port to be for account of party ordering same. If gangway watchmen are compulsory according to local regulation, same to be for Charterers' account.

Clause 67

Boatage and taxi hire for Officers/Crew/Owners to be for Owners' account and same for Charterers' business to be for Charterers' account.

Clause 68

Should the vessel be arrested during the currency of this Charter Party at the suit of any person having or purporting to have a claim against or any interest in the vessel, hire under this Charter Party shall not be payable in respect of any period whilst the vessel remains unemployed as the result of such arrest and the Owners shall reimburse to the Charterers any direct expenditure which they may incur under this Charter Party in respect of any period during which by virtue of the operation of the clause no hire payable. This clause shall be inoperative should the arrest be through any error or omission of the Charterers.

Clause 69

Deleted

Clause 70

Owners warrant that vessel's holds are clear of any Fittings/superstructures such as cardeck, curtain plates whatsoever.

Owners confirm that vessel is not black-listed by any Arab league countries nor US/Canadian longshoremen's union.

Owners guarantee vessel is suitable for grab discharging

Vessel has no relationship to ex-Yugoslavia in vessel's flag/Ownership/Crew etc.

Clause 71

LMAA clause to apply for dispute unexceeding US\$ 50,000

Clause 72

Deleted

Clause 73

The charterers shall supply bunkers of a quality suitable for burning in the vessel's main engines and auxiliaries.

SPECS:IFO 380 CST, MDO GRADE NOT LESS THAN DMB.

The owners reserve their right to make claim against the charterers during the currency of the charter period and/or after completion of charter period for any damage to the main engines and auxiliaries caused by the use of unsuitable fuels or fuels not complying with the agreed specifications. Further, if the fuels supplied prove unsuitable for burning in the vessel's main engines and auxiliaries, the owners shall not be held responsible for any reduction in the vessel's speed performance and/or increased bunker consumption, nor for any time lost and any other consequences.

BIMCO FUEL SULPHUR CONTENT CLAUSE:

Notwithstanding anything else contained in this charter party, the charterers shall supply fuels of such specifications and grades to permit the vessel, at all times, to meet the maximum sulphur content requirements of any emission control zone when the vessel is trading within that zone. the charterers shall Indemnify, defend and hold harmless the owners in respect of any loss, liability, delay, fines, costs or expenses arising or resulting from the charterers failure to comply with this clause.

For the purpose of this clause, "emission control zone" shall mean zones as stipulated in marpol annex VI and/or zones regulated by regional and/or national authorities such as, but not limited to the European Union and the US environmental protection agency.

Clause 74

Deleted

Clause 75

"Year 2000 conformity" shall mean that neither performance nor functionality of computer systems. Electronic and electro-mechanical or similar equipment will be affected by dates prior to or during the year 2000. Without prejudice to their other rights, obligations and defences under this Charter Party including, where applicable, those of Hague Visby rules the Owners warrant that they will ensure year 2000 conformity in so far as this has a bearing on the performance of the charter party.

-9-

RIDER CLAUSE TO MV RISHIKESH / JALDHI OVERSEAS PTE. LTD. CHARTER PARTY DATED 12.03.2008

Clause 76

Deleted

Clause 77

Owners confirm that valid ITF equivalent agreement for the vessel covering any port or place is available on board for the whole period of this charter party.

Clause 78

Bimco I.S.M. Clause:

From the date of coming into force of the International Safety Management (ISM) Code in relation to the vessel and thereafter during the currency of this Charter Party, the Owners shall procure that both the vessel and "the Company" (as defined by the ISM Code) shall comply with the requirements of the ISM Code. Upon request the Owners shall provide a copy of the relevant Document of Compliance (DOC) and Safety Management Certificate (SMC) to the Charterers.

Except as otherwise provided in this Charter Party, loss, damage, expense or loss of time caused by the failure on the part of the Owners or "the Company" to comply with the ISM Code shall be for the Owners' account.

Charterers to comply with owners minimum safety margin requirements as far as bunkering ISM requirements.

Clause 79

Charterers are entitled to use Taiwan/ Chinese tonnage due certificates of Owner if available.

Clause 80

Charterers at their cost may supply weather routing service to the master during the charter period. The master is to comply with the reporting procedure and the direction of the weather routing service. In the event of dispute over vessel's speed and consumption, both parties to discuss and settle the matter amicably or otherwise, the matter will be brought to arbitration.

Clause 81

Cargo claim between the owners and the charterers shall be settled in accordance with the INTER-CLUB NEW YORK exchange agreement of february 1970, as amended in 1996 and subsequent amendments.

Clause 82

Charterers to have the option to weld padeyes on deck/hold at Charterers' time/ expenses and same to be removed prior to redelivery. But Charterers to have the option to redeliver vessel without removing paying USD 5.00 (five) per padeye.

Clause 83

No freight pre paid / ante / pre dated / switch /2 nd set bill(s) of lading to be issued.

Charterers and/or agents have the option to sign original bill(s) of lading on behalf of master / owners subject following conditions:-

Bill(s) of lading to be always in strict conformity with mate's receipt without prejudice to the terms and conditions of the charter party. Immediately upon issuance of such bill(s) of lading, charterers to hand over a copy of the same to SCI's protecting or to SCI through broking channel. Charterers to indemnify owners against any claims for loss,

damage or expenses, which may result out of such signing of bill(s) of lading and to directly process, negotiate and settle any claims from the receivers.

In the event of arrest or detention / delay to the vessel against which bill(s) of lading are issued or any other vessel owned by owner against which the receivers may obtain the arrest order due to signing of such bill(s) of lading, the charterers to arrange release of vessel by providing required security/guarantee and deal with all legal formalities etc. directly with the concerned authorities and the vessel to remain on hire.

Clause 84

No deck Cargo (s) allowed.

Clause 85

Charterers shall carry out draft survey at the loadport(s) to ascertain the quantity at their cost and time.

Clause 86

The Charterers have the option to redeliver the vessel without hold cleaning, excluding dunnage/debri removal and disposal, in consideration for which Charterers are to pay a lumpsum of USD 4500.

Clause 87

Charterers to pay Owners lumpsum USD 1300 per month or prorata, including alcohol/cigarettes, for covering costs of cables/entertainment/victualling incurred on Charterers' behalf.

Clause 88

Basic war risk insurance on owner's account. Any additional war risk insurance on charterers' account.

Clause 89

BIMCO ISPS Clause to apply

- (a) (i) From the date of coming into force of the international code for the security of ships and of port facilities and the relevant amendments to chapter XI of SOLAS (ISPS code) in relation to the Vessel, and thereafter during the currency of this charter party, the Owners shall procure that both the vessel and "the company" (as defined by the ISPS Code) shall comply with the requirements of the ISPS code relating to the Vessel and "the company". Upon request the owners shall provide a copy of the relevant international ship security certificate (or the interim international ship security certificate) to the Charterers. The Owners shall provide the charterers with the full style contact details of the Company Security Officer (CSO).
 - (ii) Except as otherwise provided in this charter party, loss, damage, expense or delay, excluding consequential loss, caused by failure on the part of the Owners or "the company" to comply with the requirements of the ISPS Code or this clause shall be for the owners' account.
- (b) (i) The Charterers shall provide the CSO and the ship security officer (SSO)/ Master with their full style contact details and, where sub-letting is permitted under the terms of this charter party, shall ensure that the contact details of all sub-charterers are likewise provided to the CSO and the SSO/Master. Furthermore, the Charterers shall ensure that all sub-charter parties they enter into during the period of this Charter Party contain the following provision:

"The Charterers shall provide the owners with their full style contact details and where sub-letting is permitted under the terms of the Charter Party, shall ensure that the contact details of all sub-charterers are likewise provided to the owners".

- (ii) Except as otherwise provided in this charter party, loss, damage, expense, or delay excluding consequential loss, caused by failure on the part of the Charterers to comply with this Clause shall be for the Charterers account.
- (c) Notwithstanding anything else contained in this charter party all delay costs or expenses whatsoever arising out of or related to security regulations or measures required by the port facility or any relevant authority in accordance with the ISPS Code including, but not limited to, security guards, launch services, tug escorts, port security fees or taxes and inspections, shall be for the Charterers account, unless such costs or expenses result solely from the Owners' negligence. All measures required by the Owners to comply with the Ship Security plan shall be for the Owners' account.
- (d) If either party makes any payment which is for the other party's account according this Clause, the other party shall indemnify the paying party.

Clause 90 Bills of Lading

Owners to allow issuance of prepaid bills of lading only after receipt of full charter hire and value of estimated consumable bunkers into their bank account.

Clause 91 Discharge of Cargo

If original bill(s) of lading are not available at discharge port(s), owners agree to discharge the cargo without presentation of original bill(s) of lading and charterers to provide LOI as per owners PNI club wording and format which to be signed by charterers only. LOI to be faxed to owners along with copies of bill(s) of lading.

Clause 92

This fixture not to be linked with any other charter party between owners and charterers previously performed / executed / under performance / finalized or otherwise.

Clause 93

Charterers may sub charter the vessel but should remain responsible to the owners (as per line 16 of NYPE form). Charterers to inform the owners the full style/address of the sub charterers / their pni club and shall obtain prior approval for sub letting the vessel and owners shall approve the same on case by case basis which not to be unreasonably withheld. It is construed that any sub-chartering is done on back to back basis only and the sub-charterers are fully aware of all the terms of the head charter party.

Clause 94

Any services provided to charterers including agents attendance and any stores and/or bunkers purchased by charterers to be supplied on charterers name and credit and master to mark any delivery slip/work sheet accordingly. in case of defaults of payment by charterers to the suppliers for supplying any stores/bunkers, the vessel / owners are not responsible and the suppliers will deal directly with charterers for recovery of their dues from them.

In no event shall the charterers procure/permit to be procured for the vessel any supplies / necessaries or services without previously obtaining statement signed by an authorised representative of the furnisher thereof acknowledging that such supplies / necessaries or services are being furnished on the credit of the charterers and not on the credit of the vessel or her owners and furnisher claims no maritime lien on vessel therefore.

EXHIBIT 4



KOLKATA PORT TRUST HALDIA DOCK COMPLEX

Office of The Asst. Manager (Sh & CH) Traffic Operations (Sh & CH) Division General Cargo Borth

An ISO 9001: 2000 Ora

Telefax: 91 3224 252494 Telephone: 91 3224 217031 e-Mail: sudipto@haldookwb.nic.in

Date: 30.03.2008

No. GCB/TO/S/M. V. Rishikesh/1924

The Master M. V. Rishikesh Berth No 5 Haidia Dock

Dear Sir,

Sub: Accident at Crane No 1 of M. V. Rishikash [VON-07-2243]

At about 19:05 Hrs on date, while loading Iron Ore, Crane No. 1 of your vessel suddenly uprooted from pinion and entire upper part of the crane including boom and Operator's Cabin fell down at the forward edge of Hatch No 1. At the time of incident, Sri Monoranjan Bera, Crane Derrick Operator Cum Derrick Fitter of Haidia Dock Complex, was operating the crane. When Operators' Cabin hit the edge of Hatch No 1, Sri Bera fell down on deck from the Operators' Cabin and sustained severe injury. Immediately Sri Bera was sent to the Port Hospital where he was declared 'Brought Dead' at about 19:35 Hrs on date.

Please be informed that this office holds your ship solely responsible for the incident mentioned above and all the consequences arising thereof. Please note that cargo operation of the vessel will remain suspended till such time an enquiry is carried out by Dock Safety officials under Directorate General, Factory Advice Service & Labour Institutes. You are also held responsible for all the consequential losses to the port, the shipper and family of the deceased employee. Please note that all financial liabilities arising out of the aforesaid incident including compensation payable to the family of the employee by the port will be on your account.

Thanking you,

Yours sincerely.

(Sudipta Baneriee) 3r. Asst. Manager (Sh & CH)

For Asst. Manager (Sh & C)

General Cargo Berth

CC:

√ M/s. The Shipping Corporation of India Ltd. Haidia

w/ M/s. Devi Shipping Agency, Haldia

√ The Manager (Sh & CH), HDC

√ The Manager (Admn.), HDC

√ The Manager (P & IR), HDC

EXHIBIT 5

KOLKATA PORT TRUST HALDIA DOCK COMPLEX

AN ISO-9001: 2000 ORGANISATION



Traffic Operations (Sh & CH) Divn.
Operational Building
Chiranjibpur, Purba Medinipur – 721 604
Ph:- 03224-252208, Fax – 03224 252475

NO: MTO/ S/07-2243/664

May 16, 2008

The Shipping Corpn. Of India Ltd., Kolkata.

Kind Attn: Mr.S. G. Thawani, Regional Sr. Vice President.

Dear Sirs,

Re: MV RISHIKESH at Haldia Dock.

Kindly recall to the discussions held by you with the Deputy Chairman, HDC at his chamber on 13.05.08.

During the said meeting, the following 3-points were discussed which are required to be addressed by SCI prior to manual loading of Iron Ore by the vessel at Haldia Dock.

- a) The Inspection Certificates of all the cranes on board MV RISHIKESH would be ratified by the Inspectorate of Dock Safety to confirm the safe working of the cranes of the ship.
- b) To get the material from the damaged portion of crane No.1 tested by National Test House, Kolkata and to submit a copy of the report thereof to the Manager (Marine Ops.), HDC at the earliest.
- c) To submit a copy of the report of inspection carried out by the crane manufacturer to certify the periodical maintenance of the ship's cranes.

It is seen that a considerable time has already lapsed but submission of these records has not happened yet and it appears that the same may take further time.

It is seen that a considerable time has already lapsed but submission of these records has not happened yet and it appears that the same may take further time.

The ship is already creating marine movement constraints inside the port. To avoid further constraints in port operations on day-to-day basis, there remains another option for you to explore the possibility to arrange for loading of the ship mechanically by the shipper to avoid further unnecessary idling of the ship inside the port.

Your early action in this regard will help us to overcome the stalemate situation which is continuing for last one & half month.

Thanking you,

Yours sincerely,

(P. Kumar)
Asst.Manager(Sh&CH)

For Manager (Sh & CH).

Cc: M/s. Shipping Corporation of India Ltd., Haldia -- for information please.

Cc: M/s. Rashmi Metaliks Ltd. for their information and necessary action please.

Cc M/s Devi Shipping Agency, Haldia – for information & necessary action please.

Cc: The P.S. to Deputy Chairman for information of the Deputy Chairman. The above has been issued as per the discussion with him on date.

Cc: The General Manager (Ops) for his kind information please.

Cc: The Manager (Marine Ops) for information.

Cc: The Manager (P&IR) for his information.

EXHIBIT 6

Rashmi Msq

From: Subrata Ghosh <subrata.ghosh@rashmigroup.com>

Date: 4/18/2008 8:14:45 PM

Subject: Re: Re: Accident of Crane No. 1 - M.V. RISHIKESH

REF: RML/MV RISHIKESH/08-09/2

DATED: APRIL 18, 2008

Ref: RML/MV RISHIKESH/08-09/2

Dated: April 18, 2008 To, JALDHI OVERSEAS PTE LIMITED, SINGAPORE

CECIL STREET , #08-06, TONG ENG BUILDING , SINGAPORE â€" 069533.

Sub: M.V. RISHIKESH

Dear Sir,

Further to our letter ref RML/MV RISHIKESH/08-09 dated 18.04.2008 please note that our losses due to your breaches of the CP in relation to the state of the vessel / misdescription / unseaworthiness / uncargoworthiness and tendering of invalid NOR, are approximately, US \$ 2.00 Million due to loss of our buyers and fall in market. Kindly confirm that you will give us security for our claim by first clean Bank Guarantee before loading of your vessel. The vessel is not ready to load all the hatches and the position regarding Hatch No. 1 may please be communicated.

Yours faithfully,

For Rashmi Metaliks Ltd. Subrata Ghosh

Phone: +91 33 22894255/56

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